i. Mark Wigley: “Typographic Intelligence”
I WANT TO INSIST THAT ARCHITECTS ARE FIRST AND FOREMOST INTELLECTUALS. ARCHITECTS ARE NOT BUILDERS. THEY ARE TALKERS. THEY DON’T MAKE SOLID OBJECTS. THEY MAKE DISCOURSE ABOUT OBJECTS. This may be a hard thing to acknowledge in the Netherlands where there is this quaint idea that all architects should get to build. The fact that Dutch designers get so many commissions is a kind of contented facade that allows frustrated architects around the world to maintain the idea that it is in the nature of the architect to construct objects. Yet even in this national laboratory for concrete experiments, the real task of the architect is not to build but to think about building, to speculate. The Dutch scene may be remarkable for its steady production of intelligent buildings, but it is even more remarkable for its production of books - books that work hard to make us think that the buildings are intelligent, books that seem to get bigger and bigger, becoming substantial objects in their own right.

What if all the copies of all these books were brought back home and piled up in one place? How big a dike could we build? It might be finished with a deep layer of all the translations, but perhaps we should first add every architectural magazine, museum catalogue and school publication that has been exported. Then all the international books, catalogues, special issues, chapters, essays, reviews and newspaper columns talking about Dutch work. Then cut-outs of all the copies of every passing reference in all the printed media. How much land could we now reclaim with our megalith? And decorate it with houses made out of all the stacked video tapes and cd-roms of architects, buildings, lectures, conferences, interviews and news broadcasts. Because there would have to be some kind of shelter for the endless lines of computers needed to monitor all the discourse about Dutch architecture in web sites, streaming video clips, news groups, chat rooms and e-mails. Yet another polder could be started with all the countless print-outs that have been made around the world - while we think about accommodating the ship-loads of posters, postcards, invitation cards, advertisements, contracts, building regulations, specifications, course syllabi, letters, notebooks and faxes. Not to forget the towering landscape of photocopies or the exponentially expanding archive of scans. It has to be said that for all its remarkable combination of shameless pretension in public and nagging doubt in private, architectural discourse simply has no sense of its own size and weight.

After all, architects never simply draw. They talk. A lot. Indeed, they talk much more than they draw. Some almost only talk. The rest talk in order to build, and build in order to talk some more. No architecture without a mountain of words. The real construction site is words. And the whole point of all this talk is to persuade us that it is actually the buildings that are talking, that large lumps of concrete, metal, glass and wood speak to us about modernity, technology, identity or whatever. The architect acts like a ventriloquist, coaxing us into thinking that a static object is earnestly chatting to whoever will listen. In the simplest terms, the architect speculates by bonding words to images. Design offices produce large quantities of images and words then carefully stitch them together. In the end, it is really the stitching that gets designed. The fundamental role of the architect is actually that of the typographer. That is to say, we craft the association between discourse and form.

Every architect has to be a skilled typographer, a professional. Yet very few architects are revolutionarily brilliant with both words and drawings, able to develop whole new ways of talking at the same time that they develop whole new forms of physical organization. Those who can, quickly dominate the architectural world, but they don’t come along very often. The last century saw perhaps only a handful of such talents. Most designers are either better with words or better with images, or just good at both. But no matter how crude or routine their techniques, each typographic gesture remains a remarkable kind of magic act, a special trick in which words and objects get confused.

In presentations to clients, juries and public, architects have to negotiate this relationship between image and word with their own bodies - endlessly turning back and forth between audi-
ence and image, hoping to stitch a narrative so tightly to the forms, or pull the forms off the wall so deeply into the soundtrack, that the two stick permanently together. This crucial typographic performance becomes literal in the case of architectural publications. Text and image are artfully juxtaposed. Each publication has its recognizable look which conveys much of its attitude. An architectural philosophy is already clear in the layout technique. When designers or theorists publish their own little magazines or books, they usually take control of the relationship, laying their attitude out. There is a long tradition of key collaborations between architects and typographers trying to perfect the right mix. Words and forms are trained to do the right kind of dance with each other on the page.

The words rarely move discretely around the images. It's more of a tango than a waltz. Words and image immerse themselves in each other. This intimacy starts with the most basic of labels, which usually echo the look of the building. In order to treat the object as a stream of words, words are themselves treated as designer objects. Hand lettering used to be a part of every architect's training. Each drawing was a polemical layout, the look of the building seemingly radiating out into the words like an aura, or the look of the words radiating into the forms. Signature architects needed signature lettering. Without well crafted words, it just couldn't be architecture - a sentiment that survived as mentalities and technologies shifted, with hand lettering giving way to the industrialized effect of Letraset, which itself gave way to the endless choices of font, size and color offered by the computer. Within a year of arriving at school, young designers learn to survive by developing a feel for the polemical function of typefaces. Of course, the actual words have to be just right too. No simple label is innocent. You cannot advocate the free plan, for example, then use the generic label 'living room' in a drawing. And even the idea of a specific room for 'living' is a remarkable concept with its own history. A surprisingly nuanced history of architecture could be written simply on the basis of which labels were considered so basic that they became institutionalized and effectively invisible. These subtly revealing labels set the stage on which all the polemical slogans and analytical commentary play their high profile game.

The most basic drawing software now allows all the architect's words to be seamlessly grafted three-dimensionally into the renderings, as if embedded in the depicted objects, emerging from them, hovering over them, or passing through them. And the latest programs stage the dance in real time in front of the viewer of a monitor or lecture. Words leap out of objects and objects out of words at the touch of button. Text appears as the cursor passes across part of an object and objects appear as text is touched. Both get sensitized and hidden within each other. Presentations turn this entanglement into an extremely elaborate form of choreography, with animations producing a cinematic blurring of word and image. The architect no longer needs to talk so much while standing in front of images. The images themselves can't stop talking.

In these terms, the issue facing us here is a simple one. What kind of typography are architects developing in the face of the contemporary city? If the physical environment has turned into a dense collage of information streaming towards us, how have architects adjusted? How are they turning intermittent, overlapping and over-saturated streams into tactical images? In other words, how does the architect visualize the contemporary experience of the city as a multi-channel surfing environment, then bond words to that visualization? Exactly what kind of images and words are we producing and how are we combining them? If the core of the architect's intelligence operates through layouts, what is the architecture of our layouts today?

This is a fragment from a lecture given at the Transurbanism conference organized by V2_institute for the Unstable Media at the NAI on 30 November, 2001.

mark Wigley is an architectural historian at Columbia University (NY) and the author of, among others, White Walls, Designer dresses: The Fashion of Modern Architecture.
ii. Tom Friedman: “When I was sleeping”
Your Highnesses, as Catholic Christians, and princes who love and promote the holy Christian faith, and are enemies of the doctrine of Mahomet, and of all idolatry and heresy, determined to send me, Christopher Columbus, to the above-mentioned countries of India, to see the said princes, people, and territories, and to learn their disposition and the proper method of converting them to our holy faith; and furthermore directed that I should not proceed by land to the East, as is customary, but by a Westerly route, in which direction we have hitherto no certain evidence that anyone has gone.

—Entry from the journal of Christopher Columbus on his voyage of 1492

No one ever gave me directions like this on a golf course before: “Aim at either Microsoft or IBM.” I was standing on the first tee at the KGA Golf Club in downtown Bangalore, in southern India, when my playing partner pointed at two shiny glass-and-steel buildings off in the distance, just behind the first green. The Goldman Sachs building wasn’t done yet; otherwise he could have pointed that out as well and made it a threesome. HP and Texas Instruments had their offices on the back nine, along the tenth hole. That wasn’t all. The tee markers were from Epson, the printer company, and one of our caddies was wearing a hat from 3M. Outside, some of the traffic signs were also sponsored by Texas Instruments, and the Pizza Hut billboard on the way over showed a steaming pizza, under the headline “Gigabites of Taste!”
The World Is Flat

No, this definitely wasn’t Kansas. It didn’t even seem like India. Was this the New World, the Old World, or the Next World?

I had come to Bangalore, India’s Silicon Valley, on my own Columbus-like journey of exploration. Columbus sailed with the Niña, the Pinta, and the Santa Maria in an effort to discover a shorter, more direct route to India by heading west, across the Atlantic, on what he presumed to be an open sea route to the East Indies—rather than going south and east around Africa, as Portuguese explorers of his day were trying to do. India and the magical Spice Islands of the East were famed at the time for their gold, pearls, gems, and silk—a source of untold riches. Finding this shortcut by sea to India, at a time when the Muslim powers of the day had blocked the overland routes from Europe, was a way for both Columbus and the Spanish monarchy to become wealthy and powerful. When Columbus set sail, he apparently assumed the Earth was round, which was why he was convinced that he could get to India by going west. He miscalculated the distance, though. He thought the Earth was a smaller sphere than it is. He also did not anticipate running into a landmass before he reached the East Indies. Nevertheless, he called the aboriginal peoples he encountered in the new world “Indians.” Returning home, though, Columbus was able to tell his patrons, King Ferdinand and Queen Isabella, that although he never did find India, he could confirm that the world was indeed round.

I set out for India by going due east, via Frankfurt. I had Lufthansa business class. I knew exactly which direction I was going thanks to the GPS map displayed on the screen that popped out of the armrest of my airline seat. I landed safely and on schedule. I too encountered people called Indians. I too was searching for the source of India’s riches. Columbus was searching for hardware—precious metals, silk, and spices—the source of wealth in his day. I was searching for software, brainpower, complex algorithms, knowledge workers, call centers, transmission protocols, breakthroughs in optical engineering—the sources of wealth in our day. Columbus was happy to make the Indians he met his slaves, a pool of free manual labor.

I just wanted to understand why the Indians I met were taking our work, why they had become such an important pool for the outsourcing of service and information technology work from America and other industrialized countries. Columbus had more than one hundred men on his three ships; I had a small crew from the Discovery Times channel that fit comfortably into two banged-up vans, with Indian drivers who drove barefoot. When I set sail, so to speak, I too assumed that the world was round, but what I encountered in the real India profoundly shook my faith in that notion. Columbus accidentally ran into America but thought he had discovered part of India. I actually found India and thought many of the people I met there were Americans. Some had actually taken American names, and others were doing great imitations of American accents at call centers and American business techniques at software labs.

Columbus reported to his king and queen that the world was round, and he went down in history as the man who first made this discovery. I returned home and shared my discovery only with my wife, and only in a whisper.

"Honey," I confided, "I think the world is flat."

How did I come to this conclusion? I guess you could say it all started in Nandan Nilekani’s conference room at Infosys Technologies Limited. Infosys is one of the jewels of Indian information technology world, and Nilekani, the company’s CEO, is one of the most thoughtful and respected captains of Indian industry. I drove with the Discovery Times crew out to the Infosys campus, about forty minutes from the heart of Bangalore, to tour the facility and interview Nilekani. The Infosys campus is reached by a potholed road, with sacred cows, horse-drawn carts, and motorized rickshaws all jostling alongside our vans. Once you enter the gates of Infosys, though, you are in a different world. A massive resort-size swimming pool nestles amid boulders and manicured lawns, adjacent to a huge putting green. There are multiple restaurants and a fabulous health club. Glass-and-steel buildings seem to sprout up like weeds each week. In some of those buildings, Infosys employees are writing specific software programs for American or European companies; in others, they are running the back rooms of major...
American- and European-based multinationals—everything from computer maintenance to specific research projects to answering customer calls routed there from all over the world. Security is tight, cameras monitor the doors, and if you are working for American Express, you cannot get into the building that is managing services and research for General Electric. Young Indian engineers, men and women, walk briskly from building to building, dangling ID badges. One looked like he could do my taxes. Another looked like she could take my computer apart. And a third looked like she designed it!

After sitting for an interview, Nilekani gave our TV crew a tour of Infosys’s global conferencing center—ground zero of the Indian outsourcing industry. It was a cavernous wood-paneled room that looked like a tiered classroom from an Ivy League law school. On one end was a massive wall-size screen and overhead there were cameras in the ceiling for teleconferencing. “So this is our conference room, probably the largest screen in Asia—this is forty digital screens [put together],” Nilekani explained proudly, pointing to the biggest flat-screen TV I had ever seen. Infosys, he said, could hold a virtual meeting of the key players from its entire global supply chain for any project at any time on that supersize screen. So their American designers could be on the screen speaking with their Indian software writers and their Asian manufacturers all at once. “We could be sitting here, somebody from New York, London, Boston, San Francisco, all live. And maybe the implementation is in Singapore, so the Singapore person could also be live here. . . . That’s globalization,” said Nilekani. Above the screen there were eight clocks that pretty well summed up the Infosys workday: 24/7/365. The clocks were labeled US West, US East, GMT, India, Singapore, Hong Kong, Japan, Australia.

“Outsourcing is just one dimension of a much more fundamental thing happening today in the world,” Nilekani explained. “What happened over the last few years is that there was a massive investment in technology, especially in the bubble era, when hundreds of millions of dollars were invested in putting broadband connectivity around the world, undersea cables, all those things.” At the same time, he added, computers became cheaper and dispersed all over the world, and there was an explosion of software—e-mail, search engines like Google, and proprietary software that can chop up any piece of work and send one part to Boston, one part to Bangalore, and one part to Beijing, making it easy for anyone to do remote development. When all of these things suddenly came together around 2000, added Nilekani, they “created a platform where intellectual work, intellectual capital, could be delivered from anywhere. It could be disaggregated, delivered, distributed, produced, and put back together again—and this gave a whole new degree of freedom to the way we do work, especially work of an intellectual nature. . . . And what you are seeing in Bangalore today is really the culmination of all these things coming together.”

We were sitting on the couch outside of Nilekani’s office, waiting for the TV crew to set up its cameras. At one point, summing up the implications of all this, Nilekani uttered a phrase that rang in my ear. He said to me, “Tom, the playing field is being leveled.” He meant that countries like India are now able to compete for global knowledge work as never before—and that America had better get ready for this. America was going to be challenged, but, he insisted, the challenge would be good for America because we are always at our best when we are being challenged. As I left the Infosys campus that evening and bounced along the road back to Bangalore, I kept chewing on that phrase: “The playing field is being leveled.”

What Nandan is saying, I thought, is that the playing field is being flattened . . . Flattened? Flattened? My God, he’s telling me the world is flat!

Here I was in Bangalore—more than five hundred years after Columbus sailed over the horizon, using the rudimentary navigational technologies of his day, and returned safely to prove definitively that the world was round—and one of India’s smartest engineers, trained at his country’s top technical institute and backed by the most modern technologies of his day, was essentially telling me that the world was flat—as flat as that screen on which he can host a meeting of his whole global supply chain. Even more interesting, he was citing this development as a good thing, as a new milestone in human progress and a great opportunity for India and the world—the fact that we had made our world flat!

In the back of that van, I scribbled down four words in my notebook: “The world is flat.” As soon as I wrote them, I realized that this was the
The underlying message of everything that I had seen and heard in Bangalore in two weeks of filming. The global competitive playing field was being leveled. The world was being flattened.

As I came to this realization, I was filled with both excitement and dread. The journalist in me was excited at having found a framework to better understand the morning headlines and to explain what was happening in the world today. Clearly, it is now possible for more people than ever to collaborate and compete in real time with more other people on more different kinds of work from more different corners of the planet and on a more equal footing than at any previous time in the history of the world—using computers, e-mail, networks, teleconferencing, and dynamic new software. That is what Nandan was telling me. That was what I discovered on my journey to India and beyond. And that is what this book is about. When you start to think of the world as flat, a lot of things make sense in ways they did not before. But I was also excited personally, because what the flattening of the world means is that we are now connecting all the knowledge centers on the planet together into a single global network, which—if politics and terrorism do not get in the way—could usher in an amazing era of prosperity and innovation.

But contemplating the flat world also left me filled with dread, professional and personal. My personal dread derived from the obvious fact that it's not only the software writers and computer geeks who get empowered to collaborate on work in a flat world. It's also al-Qaeda and other terrorist networks. The playing field is not being leveled only in ways that draw in and superempower a whole new group of innovators. It's being leveled in a way that draws in and superempowers a whole new group of angry, frustrated, and humiliated men and women.

Professionally, the recognition that the world was flat was unnerving because I realized that this flattening had been taking place while I was sleeping, and I had missed it. I wasn't really sleeping, but I was otherwise engaged. Before 9/11, I was focused on tracking globalization and exploring the tension between the "Lexus" forces of economic integration and the "Olive Tree" forces of identity and nationalism—hence my 1999 book, The Lexus and the Olive Tree. But after 9/11, the olive tree wars became all-consuming for me. I spent almost all my time traveling in the Arab and Muslim worlds. During those years I lost the trail of globalization.

I found that trail again on my journey to Bangalore in February 2004. Once I did, I realized that something really important had happened while I was fixated on the olive groves of Kabul and Baghdad. Globalization had gone to a whole new level. If you put The Lexus and the Olive Tree and this book together, the broad historical argument you end up with is that there have been three great eras of globalization. The first lasted from 1492—when Columbus set sail, opening trade between the Old World and the New World—until around 1800. I would call this era Globalization 1.0. It shrank the world from a size large to a size medium. Globalization 1.0 was about countries and muscles. That is, in Globalization 1.0 the key agent of change, the dynamic force driving the process of global integration was how much brain—how much muscle, how much horsepower, wind power, or, later, steam power—your country had and how creatively you could deploy it. In this era, countries and governments (often inspired by religion or imperialism or a combination of both) led the way in breaking down walls and knitting the world together, driving global integration. In Globalization 1.0, the primary questions were: Where does my country fit into global competition and opportunities? How can I go global and collaborate with others through my country?

The second great era, Globalization 2.0, lasted roughly from 1800 to 2000, interrupted by the Great Depression and World Wars I and II. This era shrank the world from a size medium to a size small. In Globalization 2.0, the key agent of change, the dynamic force driving global integration, was multinational companies. These multinationals went global for markets and labor, spearheaded first by the expansion of the Dutch and English joint-stock companies and the Industrial Revolution. In the first half of this era, global integration was powered by falling transportation costs, thanks to the steam engine and the railroad, and in the second half by falling telecommunication costs—thanks to the diffusion of the telegraph, telephones, the PC, satellites, fiber-optic cable, and the early version of the World Wide Web. It was during this era that we really saw the
birth and maturation of a global economy, in the sense that there was enough movement of goods and information from continent to continent for there to be a global market, with global arbitrage in products and labor. The dynamic forces behind this era of globalization were breakthroughs in hardware—from steamships and railroads in the beginning to telephones and mainframe computers toward the end. And the big questions in this era were: Where does my company fit into the global economy? How does it take advantage of the opportunities? How can I go global and collaborate with others through my company? The Lexus and the Olive Tree was primarily about the climax of this era, an era when the walls started falling all around the world, and integration, and the backlash to it, went to a whole new level. But even as the walls fell, there were still a lot of barriers to seamless global integration. Remember, when Bill Clinton was elected president in 1992, virtually no one outside of government and the academy had e-mail, and when I was writing The Lexus and the Olive Tree in 1998, the Internet and e-commerce were just taking off.

Well, they took off—along with a lot of other things that came together while I was sleeping. And that is why I argue in this book that around the year 2000 we entered a whole new era: Globalization 3.0. Globalization 3.0 is shrinking the world from a size small to a size tiny and flattening the playing field at the same time. And while the dynamic force in Globalization 1.0 was countries globalizing and the dynamic force in Globalization 2.0 was companies globalizing, the dynamic force in Globalization 3.0—the thing that gives it its unique character—is the newfound power for individuals to collaborate and compete globally. And the lever that is enabling individuals and groups to go global so easily and so seamlessly is not horsepower, and not hardware, but software—all sorts of new applications—in conjunction with the creation of a global fiber-optic network that has made us all next-door neighbors. Individuals must, and can, now ask, Where do I fit into the global competition and opportunities of the day, and how can I, on my own, collaborate with others globally?

But Globalization 3.0 not only differs from the previous eras in how it is shrinking and flattening the world and in how it is empowering indi-

viduals. It is different in that Globalization 1.0 and 2.0 were driven primarily by European and American individuals and businesses. Even though China actually had the biggest economy in the world in the eighteenth century, it was Western countries, companies, and explorers who were doing most of the globalizing and shaping of the system. But going forward, this will be less and less true. Because it is flattening and shrinking the world, Globalization 3.0 is going to be more and more driven not only by individuals but also by a much more diverse—non-Western, non-white—group of individuals. Individuals from every corner of the flat world are being empowered. Globalization 3.0 makes it possible for so many more people to plug and play, and you are going to see every color of the human rainbow take part.

(While this empowerment of individuals to act globally is the most important new feature of Globalization 3.0, companies—large and small—have been newly empowered in this era as well. I discuss both in detail later in the book.)

Needless to say, I had only the vaguest appreciation of all this as I left Nandan’s office that day in Bangalore. But as I sat contemplating these changes on the balcony of my hotel room that evening, I did know one thing: I wanted to drop everything and write a book that would enable me to understand how this flattening process happened and what its implications might be for countries, companies, and individuals. So I picked up the phone and called my wife, Ann, and told her, “I am going to write a book called The World Is Flat.” She was both amused and curious—well, maybe more amused than curious! Eventually, I was able to bring her around, and I hope I will be able to do the same with you, dear reader. Let me start by taking you back to the beginning of my journey to India, and other points east, and share with you some of the encounters that led me to conclude the world was no longer round—but flat.

Jaithirth “Jerry” Rao was one of the first people I met in Bangalore—and I hadn’t been with him for more than a few minutes at the Leela Palace hotel before he told me that he could handle my tax returns and any other accounting needs I had—from Bangalore. No thanks, I de-
murred, I already have an accountant in Chicago. Jerry just smiled. He was too polite to say it—that he may already be my accountant, or rather my accountant's accountant, thanks to the explosion in the outsourcing of tax preparation.

"This is happening as we speak," said Rao, a native of Mumbai, formerly Bombay, whose Indian firm, Mphasis, has a team of Indian accountants able to do outsourced accounting work from any state in America and the federal government. "We have tied up with several small and medium-sized CPA firms in America."

"You mean like my accountant?" I asked. "Yes, like your accountant," said Rao with a smile. Rao's company has pioneered a workflow software program with a standardized format that makes the outsourcing of tax returns cheap and easy. The whole process starts, Jerry explained, with an accountant in the United States scanning my last year's tax returns, plus my W-2, W-4, 1099, bonuses, and stock statements—everything—into a computer server, which is physically located in California or Texas. "Now your accountant, if he is going to have your taxes done overseas, knows that you would prefer not to have your surname be known or your Social Security number known [to someone outside the country], so he can choose to suppress that information," said Rao. "The accountants in India call up all the raw information directly from the server in America [using a password], and they complete your tax returns, with you remaining anonymous. All the data stays in the U.S. to comply with privacy regulations... We take data protection and privacy very seriously. The accountant in India can see the data on his screen, but he cannot take a download of it or print it out—our program does not allow it. The most he could do would be to try to memorize it, if he had some ill intention. The accountants are not allowed to even take a paper and pen into the room when they are working on the returns."

I was intrigued at just how advanced this form of service outsourcing had become. "We are doing several thousand returns," said Rao. "What's more, 'Your CPA in America need not even be in their office. They can be sitting on a beach in California and e-mail us and say, 'Jerry, you are really good at doing New York State returns, so you do Tom's returns. And Sonia, you and your team in Delhi do the Washington and Florida returns.' Sonia, by the way, is working out of her house in India, with no overhead [for the company to pay]. 'And these others, they are really complicated, so I will do them myself.'"

In 2003, some 25,000 U.S. tax returns were done in India. In 2004, the number was 100,000. In 2005, it is expected to be 400,000. In a decade, you will assume that your accountant has outsourced the basic preparation of your tax returns—if not more.

"How did you get into this?" I asked Rao.

"My friend Jeroen Tas, a Dutchman, and I were both working in California for Citigroup," Rao explained. "I was his boss and we were coming back from New York one day together on a flight and I said that I was planning to quit and he said, 'So am I.' We both said, 'Why don't we start our own business?' So in 1997–98, we put together a business plan to provide high-end Internet solutions for big companies... Two years ago, though, I went to a technology convention in Las Vegas and was approached by some medium-size [American] accounting firms, and they said they could not afford to set up big tax outsourcing operations to India, but the big guys could, and [the medium guys] wanted to get ahead of them. So we developed a software product called VTR—Virtual Tax Room—to enable these medium-size accounting firms to easily outsource tax returns."

These midsize firms "are getting a more level playing field, which they were denied before," said Jerry. "Suddenly they can get access to the same advantages of scale that the bigger guys always had."

"Is the message to Americans, 'Mama, don't let your kids grow up to be accountants'? I asked.

"Not really," said Rao. "What we have done is taken the grunt work. You know what is needed to prepare a tax return? Very little creative work. This is what will move overseas."

"What will stay in America?" I asked.

"The accountant who wants to stay in business in America will be the one who focuses on designing creative complex strategies, like tax avoidance or tax sheltering, managing customer relationships," he said. "He or she will say to his clients, 'I am getting the grunt work done efficiently far away. Now let's talk about how we manage your estate and what you are..."
going to do about your kids. Do you want to leave some money in your trusts? It means having the quality-time discussions with clients rather than running around like chickens with their heads cut off from February to April, and often filing for extensions into August, because they have not had the quality time with clients."

Judging from an essay in the journal Accounting Today (June 7, 2004), this does, indeed, seem to be the future. L. Gary Boomer, a CPA and CEO of Boomer Consulting in Manhattan, Kansas, wrote, "This past [tax] season produced over 100,000 [outsourced] returns and has now expanded beyond individual returns to trusts, partnerships and corporations ... The primary reason that the industry has been able to scale up as rapidly as it has over the past three years is due to the investment that these [foreign-based] companies have made in systems, processes and training." There are about seventy thousand accounting grads in India each year, he added, many of whom go to work for local Indian firms starting at $100 a month. With the help of high-speed communications, stringent training, and standardized forms, these young Indians can fairly rapidly be converted into basic Western accountants at a fraction of the cost. Some of the Indian accounting firms even go about marketing themselves to American firms through teleconferencing and skip the travel. Concluded Boomer, "The accounting profession is currently in transformation. Those who get caught in the past and resist change will be forced deeper into commoditization. Those who can create value through leadership, relationships and creativity will transform the industry, as well as strengthen relationships with their existing clients."

What you're telling me, I said to Rao, is that no matter what your profession — doctor, lawyer, architect, accountant — if you are an American, you better be good at the touchy-feely service stuff, because anything that can be digitized can be outsourced to either the smartest or the cheapest producer, or both. Rao answered, "Everyone has to focus on what exactly is their value-add."

But what if I am just an average accountant? I went to a state university. I had a B+ average. Eventually I got my CPA. I work in a big accounting firm, doing a lot of standard work. I rarely meet with clients. They keep me in the back. But it is a decent living and the firm is basically happy with me. What is going to happen to me in this system?

"It is a good question," said Rao. "We must be honest about it. We are in the middle of a big technological change, and when you live in a society that is at the cutting edge of that change [like America], it is hard to predict. It's easy to predict for someone living in India. In ten years we are going to be doing a lot of the stuff that is being done in America today. We can predict our future. But we are behind you. You are defining the future. America is always on the edge of the next creative wave ... So it is difficult to look into the eyes of that accountant and say this is what is going to be. We should not trivialize that. We must deal with it and talk about it honestly ... Any activity where we can digitize and decompose the value chain, and move the work around, will get moved around. Some people will say, 'Yes, but you can't serve me a steak.' True, but I can take the reservation for your table sitting anywhere in the world, if the restaurant does not have an operator. We can say, 'Yes, Mr. Friedman, we can give you a table by the window.' In other words, there are parts of the whole dining-out experience that we can decompose and outsource. If you go back and read the basic economics textbooks, they will tell you: Goods are traded, but services are consumed and produced in the same place. And you cannot export a haircut. But we are coming close to exporting a haircut, the appointment part. What kind of haircut do you want? Which barber do you want? All those things can and will be done by a call center far away."

As we ended our conversation, I asked Rao what he is up to next. He was full of energy. He told me he'd been talking to an Israeli company that is making some big advances in compression technology to allow for easier, better transfers of CAT scans via the Internet so you can quickly get a second opinion from a doctor half a world away.

A few weeks after I spoke with Rao, the following e-mail arrived from Bill Brody, the president of Johns Hopkins University, whom I had just interviewed for this book:

Dear Tom, I am speaking at a Hopkins continuing education medical meeting for radiologists (I used to be a radiologist) ...
came upon a very fascinating situation that I thought might interest you. I have just learned that in many small and some medium-size hospitals in the US, radiologists are outsourcing reading of CAT scans to doctors in India and Australia!!! Most of this evidently occurs at night (and maybe weekends) when the radiologists do not have sufficient staffing to provide in-hospital coverage. While some radiology groups will use teleradiology to ship images from the hospital to their home (or to Vail or Cape Cod, I suppose) so that they can interpret images and provide a diagnosis 24/7, apparently the smaller hospitals are shipping CAT scan images to radiologists abroad. The advantage is that it is daytime in Australia or India when it is nighttime here—so after-hours coverage becomes more readily done by shipping the images across the globe. Since CAT (and MRI) images are already in digital format and available on a network with a standardized protocol, it is no problem to view the images anywhere in the world . . . I assume that the radiologists on the other end . . . must have trained in [the] US and acquired the appropriate licenses and credentials . . . The groups abroad that provide these after-hours readings are called “Nighthawks” by the American radiologists that employ them.

Best,
Bill

Thank goodness I'm a journalist and not an accountant or a radiologist. There will be no outsourcing for me—even if some of my readers wish my column could be shipped off to North Korea. At least that's what I thought. Then I heard about the Reuters operation in India. I didn't have time to visit the Reuters office in Bangalore, but I was able to get hold of Tom Glocer, the CEO of Reuters, to hear what he was doing. Glocer is a pioneer in the outsourcing of elements of the news supply chain.

With 2,300 journalists around the world, in 197 bureaus, serving a

market including investment bankers, derivatives traders, stockbrokers, newspapers, radio, television, and Internet outlets, Reuters has always had a very complex audience to satisfy. After the dot-com bust, though, when many of its customers became very cost-conscious, Reuters started asking itself, for reasons of both cost and efficiency: Where do we actually need our people to be located to feed our global news supply chain? And can we actually disaggregate the work of a journalist and keep part in London and New York and shift part to India?

Glocer started by looking at the most basic bread-and-butter function Reuters provides, which is breaking news about company earnings and related business developments, every second of every day. “Exxon comes out with its earnings and we need to get that as fast possible up on screens around the world: ‘Exxon earned thirty-nine cents this quarter as opposed to thirty-six cents last quarter.’ The core competency there is speed and accuracy,” explained Glocer. “You don’t need a lot of analysis. We just need to get the basic news up as fast as possible. The flash should be out in seconds after the company releases, and the table [showing the recent history of quarterly earnings] a few seconds later.”

Those sorts of earnings flashes are to the news business what vanilla is to the ice cream business—a basic commodity that actually can be made anywhere in the flat world. The real value-added knowledge work happens in the next five minutes. That is when you need a real journalist who knows how to get a comment from the company, a comment from the top two analysts in the field, and even some word from competitors to put the earnings report in perspective. “That needs a higher journalistic skill set—someone in the market with contacts, who knows who the best industry analysts are and has taken the right people to lunch,” said Glocer.

The dot-com bust and the flattening of the world forced Glocer to rethink how Reuters delivered news—whether it could disaggregate the functions of a journalist and ship the low-value-added functions to India. His primary goal was to reduce the overlap Reuters payroll, while preserving as many good journalism jobs as possible. “So the first thing we did,” said Glocer, “was hire six reporters in Bangalore as an experiment.
We said, 'Let's let them just do the flash headlines and the tables and whatever else we can get them to do in Bangalore.'

These new Indian hires had accounting backgrounds and were trained by Reuters, but they were paid standard local wages and vacation and health benefits. "India is an unbelievably rich place for recruiting people, not only with technical skills but also financial skills," said Glocer. When a company puts out its earnings, one of the first things it does is hand it to the wires—Reuters, Dow Jones, and Bloomberg—for distribution. "We will get that raw data," he said, "and then it's a race to see how fast we can turn it around. Bangalore is one of the most wired places in the world, and although there's a slight delay—one second or less—in getting the information over there, it turns out you can just as easily sit in Bangalore and get the electronic version of a press release and turn it into a story as you can in London or New York."

The difference, however, is that wages and rents in Bangalore are less than one-fifth what they are in those Western capitals.

While economics and the flattening of the world have pushed Reuters down this path, Glocer has tried to make a virtue of necessity. "We think we can off-load commoditized reporting and get that done efficiently somewhere else in the world," he said, and then give the conventional Reuters journalists, whom the company is able to retain, a chance to focus on doing much higher-value-added and personally fulfilling journalism and analysis. "Let's say you were a Reuters journalist in New York. Do you reach your life's fulfillment by turning press releases into boxes on the screen, or by doing the analysis?" asked Glocer. Obviously, it is the latter. Outsourcing news bulletins to India also allows Reuters to extend the breadth of its reporting to more small-cap companies, companies it was not cost-efficient for Reuters to follow before with higher-paid journalists in New York. But with lower-wage Indian reporters, who can be hired in large numbers for the cost of one reporter in New York, it can now do that from Bangalore. By the summer of 2004, Reuters had grown its Bangalore content operation to three hundred staff, aiming eventually for a total of fifteen hundred. Some of those are Reuters veterans sent out to train the Indian teams, some are reporters filing earnings flashes, but most are journalists doing slightly more specialized data analysis—number crunching—for securities offerings.

"A lot of our clients are doing the same thing," said Glocer. "Investment research has had to have huge amounts of cost ripped out of it, so a lot of firms are using shift work in Bangalore to do bread-and-butter company analysis." Until recently the big Wall Street firms had conducted investment research by spending millions of dollars on star analysts and then charging part of their salaries to their stockbrokerage departments, which shared the analysis with their best customers, and part to their investment banking business, which sometimes used glowing analyses of a company to lure its banking business. In the wake of New York State Attorney General Eliot Spitzer's investigations into Wall Street practices, following several scandals, investment banking and stockbrokerage have had to be distinctly separated—so that analysts will stop hyping companies in order to get their investment banking. But as a result, the big Wall Street investment firms have had to sharply reduce the cost of their market research, all of which has to be paid for now by their brokerage departments alone. And this created a great incentive for them to outsource some of this analytical work to places like Bangalore. In addition to being able to pay an analyst in Bangalore about $15,000 in total compensation, as opposed to $80,000 in New York or London, Reuters has found that its India employees tend to be financially literate and highly motivated as well. Reuters also recently opened a software development center in Bangkok because it turned out to be a good place to recruit developers who had been overlooked by all the Western companies vying for talent in Bangalore.

I find myself torn by this trend. Having started my career as a wire service reporter with United Press International, I have enormous sympathy with wire service reporters and the pressures, both professional and financial, under which they toil. But UPI might still be thriving today as a wire service, which it is not, if it had been able to outsource some of its lower-end business when I started as a reporter in London twenty-five years ago.

"It is delicate with the staff," said Glocer, who has cut the entire Reuters staff by roughly a quarter, without deep cuts among the reporters. The Reuters staff, he said, understand that this is being done so
that the company can survive and then thrive again. At the same time, said Glocer, “these are sophisticated people out reporting. They see that our clients are doing the exact same things. They get the plot of the story... What is vital is to be honest with people about what we are doing and why and not sugarcoat the message. I firmly believe in the lesson of classical economists about moving work to where it can be done best. However, we must not ignore that in some cases, individual workers will not easily find new work. For them, retraining and an adequate social safety net are needed.”

In an effort to deal straight with the Reuters staff, David Schlesinger, who heads Reuters America, sent all editorial employees a memo, which included the following excerpt:

OFF-SHORING WITH OBLIGATION
I grew up in New London, Connecticut, which in the 19th century was a major whaling center. In the 1960's and 70's the whales were long gone and the major employers in the region were connected with the military—not a surprise during the Vietnam era. My classmates’ parents worked at Electric Boat, the Navy and the Coast Guard. The peace dividend changed the region once again, and now it is best known for the great gambling casinos of Mohegan Sun and Foxwoods and for the pharmaceutical researchers of Pfizer. Jobs went; jobs were created. Skills went out of use; new skills were required. The region changed; people changed. New London, of course, was not unique. How many mill towns saw their mills close; how many shoe towns saw the shoe industry move elsewhere; how many towns that were once textile powerhouses now buy all their linens from China? Change is hard. Change is hardest on those caught by surprise. Change is hardest on those who have difficulty changing too. But change is natural; change is not new; change is important. The current debate about off-shoring is dangerously hot. But the debate about work going to India, China and Mexico is actually no different from the debate once held about submarine work leaving New London or shoe work leaving Massachusetts or textile work leaving North Carolina. Work gets done where it can be done most effectively and efficiently. That ultimately helps the New Londons, New Bedfords and New Yorks of this world even more than it helps the Bangalores and Shenzhens. It helps because it frees up people and capital to do different, more sophisticated work, and it helps because it gives an opportunity to produce the end product more cheaply, benefiting customers even as it helps the corporation. It’s certainly difficult for individuals to think about “their” work going away, being done thousands of miles away by someone earning thousands of dollars less per year. But it’s time to think about the opportunity as well as the pain, just as it’s time to think about the obligations of off-shoring as well as the opportunities... Every person, just as every corporation, must tend to his or her own economic destiny, just as our parents and grandparents in the mills, shoe shops and factories did.

“THE MONITOR IS BURNING?”

Do you know what an Indian call center sounds like?

While filming the documentary about outsourcing, the TV crew and I spent an evening at the Indian-owned “24/7 Customer” call center in Bangalore. The call center is a cross between a co-ed college frat house and a phone bank raising money for the local public TV station. There are several floors with rooms full of twenty-somethings—some twenty-five hundred in all—working the phones. Some are known as “outbound” operators, selling everything from credit cards to phone minutes. Others deal with “inbound” calls—everything from tracing lost luggage for U.S. and European airline passengers to solving computer problems for confused American consumers. The calls are transferred here by satellite and undersea fiber-optic cable. Each vast floor of a call center consists of clusters of cubicles. The young people work in little
teams under the banner of the company whose phone support they are providing. So one corner might be the Dell group, another might be flying the flag of Microsoft. Their working conditions look like those at your average insurance company. Although I am sure that there are call centers that are operated like sweatshops, 24/7 is not one of them.

Most of the young people I interviewed give all or part of their salary to their parents. In fact, many of them have starting salaries that are higher than their parents’ retiring salaries. For entry-level jobs into the global economy, these are about as good as it gets.

I was wandering around the Microsoft section around six p.m. Bangalore time, when most of these young people start their workday to coincide with the dawn in America, when I asked a young Indian computer expert there a simple question: What was the record on the floor for the longest phone call to help some American who got lost in the maze of his or her own software?

Without missing a beat he answered, “Eleven hours.”

“Eleven hours?” I exclaimed.

“Eleven hours,” he said.

I have no way of checking whether this is true, but you do hear snippets of some oddly familiar conversations as you walk the floor at 24/7 and just listen over the shoulders of different call center operators doing their things. Here is a small sample of what we heard that night while filming for Discovery Times. It should be read, if you can imagine this, in the voice of someone with an Indian accent trying to imitate an American or a Brit. Also imagine that no matter how rude, unhappy, irritated, or ornery the voices are on the other end of the line, these young Indians are incessantly and unfailingly polite.

Woman call center operator: “Good afternoon, may I speak with . . .?”

(Someone on the other end just slammed down the phone.)

Male call center operator: “Merchant services, this is Jerry, may I help you?” (The Indian call center operators adopt Western names of their own choosing. The idea, of course, is to make their American or European customers feel more comfortable. Most of the young Indians I talked to about this were not offended but took it as an opportunity to have some fun. While a few just opt for Susan or Bob, some really get creative.)

Woman operator in Bangalore speaking to an American: “My name is Ivy Timberwoods and I am calling you . . .”

Woman operator in Bangalore getting an American’s identity number: “May I have the last four digits of your Social Security?”

Woman operator in Bangalore giving directions as though she were in Manhattan and looking out her window: “Yes, we have a branch on Seventy-fourth and Second Avenue, a branch at Fifty-fourth and Lexington . . .”

Male operator in Bangalore selling a credit card he could never afford himself: “This card comes to you with one of the lowest APR . . .”

Woman operator in Bangalore explaining to an American how she screwed up her checking account: “Check number six-six-five for eighty-one dollars and fifty-five cents. You will still be hit by the thirty-dollar charge. Am I clear?”

Woman operator in Bangalore after walking an American through a computer glitch: “Not a problem, Mr. Jassup. Thank you for your time. Take care. Bye-bye.”

Woman operator in Bangalore after someone has just slammed down the phone on her: “Hello? Hello?”

Woman operator in Bangalore apologizing for calling someone in America too early: “This is just a courtesy call, I’ll call back later in the evening . . .”

Male operator in Bangalore trying desperately to sell an airline credit card to someone in America who doesn’t seem to want one: “Is that because you have too many credit cards, or you don’t like flying, Mrs. Bell?”

Woman operator in Bangalore trying to talk an American out of her computer crash: “Start switching between memory okay and memory test . . .”

Male operator in Bangalore doing the same thing: “All right, then, let’s just punch in three and press Enter . . .”

Woman operator in Bangalore trying to help an American who cannot stand being on the help line another second: “Yes, ma’am, I do
understand that you are in a hurry right now. I am just trying to help you out . . .”

Woman operator in Bangalore getting another phone slammed down on her: “Yes, well, so what time would be goo . . .”

Same woman operator in Bangalore getting another phone slammed down on her: “Why, Mrs. Kent, it’s not a . . .”

Same woman operator in Bangalore getting another phone slammed down on her: “As a safety back . . . Hello?”

Same woman operator in Bangalore looking up from her phone: “I definitely have a bad day!”

Woman operator in Bangalore trying to help an American woman with a computer problem that she has never heard before: “What is the problem with this machine, ma’am? The monitor is burning?”

There are currently about 245,000 Indians answering phones from all over the world or dialing out to solicit people for credit cards or cell phone bargains or overdue bills. These call center jobs are low-wage, low-prestige jobs in America, but when shifted to India they become high-wage, high-prestige jobs. The esprit de corps at 24/7 and other call centers I visited seemed quite high, and the young people were all eager to share some of the bizarre phone conversations they’ve had with Americans who dialed 1-800-HELP, thinking they would wind up talking to someone around the block, not around the world.

C. M. Meghna, a 24/7 call center female operator, told me, “I’ve had lots of customers who call in [with questions] not even connected to the product that we’re dealing with. They would call in because they had lost their wallet or just to talk to somebody. I’m like, ‘Okay, all right, maybe you should look under the bed [for your wallet] or where do you normally keep it,’ and she’s like, ‘Okay, thank you so much for helping.’”

Nitu Somaiah: “One of the customers asked me to marry him.”

Sophie Sunder worked for Delta’s lost-baggage department: “I remember this lady called from Texas,” she said, “and she was, like, weeping on the phone. She had traveled two connecting flights and she lost her bag and in the bag was her daughter’s wedding gown and wedding ring and I felt so sad for her and there was nothing I could do. I had no information.

“Most of the customers were irate,” said Sunder. “The first thing they say is, ‘Where’s my bag? I want my bag now!’ We were like supposed to say, ‘Excuse me, can I have your first name and last name?’ ‘But where’s my bag!’ Some would ask which country am I from? We are supposed to tell the truth, [so] we tell them India. Some thought it was Indiana, not India! Some did not know where India is. I said it is the country next to Pakistan.”

Although the great majority of the calls are rather routine and dull, competition for these jobs is fierce—not only because they pay well, but because you can work at night and go to school during part of the day, so they are stepping-stones toward a higher standard of living. P. V. Kannan, CEO and cofounder of 24/7, explained to me how it all worked: “Today we have over four thousand associates spread out in Bangalore, Hyderabad, and Chennai. Our associates start out with a take-home pay of roughly $200 a month, which grows to $300 to $400 per month in six months. We also provide transportation, lunch, and dinner at no extra cost. We provide life insurance, medical insurance for the entire family—and other benefits.”

Therefore, the total cost of each call center operator is actually around $500 per month when they start out and closer to $600 to $700 per month after six months. Everyone is also entitled to performance bonuses that allow them to earn, in certain cases, the equivalent of 100 percent of their base salary. “Around 10 to 20 percent of our associates pursue a degree in business or computer science during the day hours,” said Kannan, adding that more than one-third are taking some kind of extra computer or business training, even if it is not toward a degree. “It is quite common in India for people to pursue education through their twenties—self-improvement is a big theme and actively encouraged by parents and companies. We sponsor an MBA program for consistent performers [with] full-day classes over the weekend. Everyone works eight hours a day, five days a week, with two fifteen-minute breaks and an hour off for lunch or dinner.”

Not surprisingly, the 24/7 customer call center gets about seven hun-
dressed applications a day, but only 6 percent of applicants are hired. Here is a snippet from a recruiting session for call center operators at a women's college in Bangalore:

Recruiter 1: “Good morning, girls.”
Class in unison: “Good morning, ma’am.”
Recruiter 1: “We have been retained by some of the multinationals here to do the recruitment for them. The primary clients that we are recruiting [for] today are Honeywell. And also for America Online.”

The young women—dozens of them—then all lined up with their application forms and waited to be interviewed by a recruiter at a wooden table. Here is what some of the interviews sounded like:

Recruiter 1: “What kind of job are you looking at?”
Applicant 1: “It should be based on accounts, then, where I can grow, I can grow in my career.”
Recruiter 1: “You have to be more confident about yourself when you’re speaking. You’re very nervous. I want you to work a little on that and then get in touch with us.”
Recruiter 2 to another applicant: “Tell me something about yourself.”
Applicant 2: “I have passed my SSC with distinction. Second P also with distinction. And I also hold a 70 percent aggregate in previous two years.” (This is Indian lingo for their equivalents of GPA and SAT scores.)
Recruiter 2: “Go a little slow. Don’t be nervous. Be cool.”

The next step for those applicants who are hired at a call center is the training program, which they are paid to attend. It combines learning how to handle the specific processes for the company whose calls they will be taking or making, and attending something called “accent neutralization class.” These are daylong sessions with a language teacher who prepares the new Indian hires to disguise their pronounced Indian accents when speaking English and replace them with American, Canadian, or British ones—depending on which part of the world they will be speaking with. It’s pretty bizarre to watch. The class I sat in on was being trained to speak in a neutral middle-American accent. The students were asked to read over and over a single phonetic paragraph designed to teach them how to soften their r’s and to roll their r’s.

Their teacher, a charming eight-months-pregnant young woman dressed in a traditional Indian sari, moved seamlessly among British, American, and Canadian accents as she demonstrated reading a paragraph designed to highlight phonetics. She said to the class, “Remember the first day I told you that the Americans flap the ‘tuh’ sound? You know, it sounds like an almost ‘dah’ sound—not crisp and clear like the British. So I would not say”—here she was crisp and sharp—“Betty bought a bit of better butter’ or ‘Insert a quarter in the meter.’ But I would say”—her voice very flat—“ ‘Insert a quarter in the meter’ or ‘Betty bought a bit of better butter.’ So I’m just going to read it out for you once, and then we’ll read it together. All right? Thirty little turtles in a bottle of bottled water. A bottle of bottled water held thirty little turtles. It didn’t matter that each turtle had to rattle a metal ladle in order to get a little bit of noodles.’

“All right, who’s going to read first?” the instructor asked. Each member of the class then took a turn trying to say this tongue twister in an American accent. Some of them got it on the first try, and others, well, let’s just say that you wouldn’t think they were in Kansas City if they answered your call to Delta’s lost-luggage number.

After listening to them stumble through this phonetics lesson for half an hour, I asked the teacher if she would like me to give them an authentic version—since I’m originally from Minnesota, smack in the Midwest, and still speak like someone out of the movie Fargo. Absolutely, she said.

So I read the following paragraph: “A bottle of bottled water held thirty little turtles. It didn’t matter that each turtle had to rattle a metal ladle in order to get a little bit of noodles, a total turtle delicacy . . . The problem was that there were many turtle battles for less than oodles of noodles. Every time they thought about grappling with the haggler turtles their little turtle minds boggled and they only caught a little bit of noodles.”

The class responded enthusiastically. It was the first time I ever got an ovation for speaking Minnesotan. On the surface, there is something unappealing about the idea of inducing other people to flatten their accents in order to compete in a flatter world. But before you disparage it, you have to taste just how hungry these kids are to escape the lower end of the middle class and move up. If a little accent modification is the price they have to pay to jump a rung of the ladder, then so be it—they say.
“This is a high-stress environment,” said Nilekani, the CEO of Infosys, which also runs a big call center. “It is twenty-four by seven. You work in the day, and then the night, and then the next morning.” But the working environment, he insisted, “is not the tension of alienation. It is the tension of success. They are dealing with the challenges of success, of high-pressure living. It is not the challenge of worrying about whether they would have a challenge.”

That was certainly the sense I got from talking to a lot of the call center operators on the floor. Like any explosion of modernity, outsourcing is challenging traditional norms and ways of life. But educated Indians have been held back so many years by both poverty and a socialist bureaucracy that many of them seem more than ready to put up with the hours. And needless to say, it is much easier and more satisfying for them to work hard in Bangalore than to pack up and try to make a new start in America. In the flat world they can stay in India, make a decent salary, and not have to be away from families, friends, food, and culture.

At the end of the day, these new jobs actually allow them to be more Indian. Said Anney Unnikrishnan, a personnel manager at 24/7, “I finished my MBA and I remember writing the GMAT and getting into Purdue University. But I couldn’t go because I couldn’t afford it. I didn’t have the money for it. Now I can, [but] I see a whole lot of American industry has come into Bangalore and I don’t really need to go there. I can work for a multinational sitting right here. So I still get my rice and sambar [a traditional Indian dish], which I eat. I don’t need to, you know, learn to eat coleslaw and cold beef. I still continue with my Indian food and I still work for a multinational. Why should I go to America?”

The relatively high standard of living that she can now enjoy—enough for a small apartment and car in Bangalore—is good for America as well. When you look around at 24/7’s call center, you see that all the computers are running Microsoft Windows. The chips are designed by Intel. The phones are from Lucent. The air-conditioning is by Carrier, and even the bottled water is by Coke. In addition, 90 percent of the shares in 24/7 are owned by U.S. investors. This explains why, although the United States has lost some service jobs to India in recent years, total exports from American-based companies—merchandise and services—to India have grown from $2.5 billion in 1990 to $5 billion in 2003. So even with the outsourcing of some service jobs from the United States to India, India’s growing economy is creating a demand for many more American goods and services.

What goes around, comes around.

Nine years ago, when Japan was beating America’s brains out in the auto industry, I wrote a column about playing the computer geography game Where in the World is Carmen Sandiego? with my nine-year-old daughter, Orly. I was trying to help her by giving her a clue suggesting that Carmen had gone to Detroit, so I asked her, “Where are cars made?” And without missing a beat she answered, “Japan.”

Ouch!

Well, I was reminded of that story while visiting Global Edge, an Indian software design firm in Bangalore. The company’s marketing manager, Rajesh Rao, told me that he had just made a cold call to the VP for engineering of a U.S. company, trying to drum up business. As soon as Mr. Rao introduced himself as calling from an Indian software firm, the U.S. executive said to him, “Namaste,” a common Hindi greeting. Said Mr. Rao, “A few years ago nobody in America wanted to talk to us. Now they are eager.” And a few even know how to say hello in proper Hindu fashion. So now I wonder: If I have a granddaughter one day, and I tell her I’m going to India, will she say, “Grandpa, is that where software comes from?”

No, not yet, honey. Every new product—from software to widgets—goes through a cycle that begins with basic research, then applied research, then incubation, then development, then testing, then manufacturing, then deployment, then support, then continuation engineering in order to add improvements. Each of these phases is specialized and unique, and neither India nor China nor Russia has a critical mass of talent that can handle the whole product cycle for a big American multinational. But these countries are steadily developing their research and development capabilities to handle more and more of these phases. As that continues, we really will see the beginning of what Satyam Cherukuri, of Sarnoff, an American research and development firm, has
called “the globalization of innovation” and an end to the old model of a single American or European multinational handling all the elements of the development product cycle from its own resources. More and more American and European companies are outsourcing significant research and development tasks to India, Russia, and China.

According to the information technology office of the state government in Karnataka, where Bangalore is located, Indian units of Cisco Systems, Intel, IBM, Texas Instruments, and GE have already filed 1,000 patent applications with the U.S. Patent Office. Texas Instruments alone has had 225 U.S. patents awarded to its Indian operation. “The Intel team in Bangalore is developing microprocessor chips for high-speed broadband wireless technology, to be launched in 2006,” the Karnataka IT office said, in a statement issued at the end of 2004, and “at GE’s John F. Welch Technology Centre in Bangalore, engineers are developing new ideas for aircraft engines, transport systems and plastics.” Indeed, GE over the years has frequently transferred Indian engineers who worked for it in the United States back to India to integrate its whole global research effort. GE now even sends non-Indians to Bangalore. Vivek Paul is the president of Wipro Technologies, another of the elite Indian technology companies, but he is based in Silicon Valley to be close to Wipro’s American customers. Before coming to Wipro, Paul managed GE’s CT scanner business out of Milwaukee. At the time he had a French colleague who managed GE’s power generator business for the scanners out of France.

“I ran into him on an airplane recently,” said Paul, “and he told me he had moved to India to head up GE’s high-energy research there.”

I told Vivek that I love hearing an Indian who used to head up GE’s CT business in Milwaukee but now runs Wipro’s consulting business in Silicon Valley tell me about his former French colleague who has moved to Bangalore to work for GE. That is a flat world.

Every time I think I have found the last, most obscure job that could be outsourced to Bangalore, I discover a new one. My friend Vivek Kulkarni used to head the government office in Bangalore responsible for attracting high technology global investment. After stepping down from that post in 2003, he started a company called B2K, with a division called Brickwork, which offers busy global executives their own personal assistant in India. Say you are running a company and you have been asked to give a speech and a PowerPoint presentation in two days. Your “remote executive assistant” in India, provided by Brickwork, will do all the research for you, create the PowerPoint presentation, and e-mail the whole thing to you overnight so that it is on your desk the day you have to deliver it.

“You can give your personal remote executive assistant their assignment when you are leaving work at the end of the day in New York City, and it will be ready for you the next morning,” explained Kulkarni. “Because of the time difference with India, they can work on it while you sleep and have it back in your morning.” Kulkarni suggested I hire a remote assistant in India to do all the research for this book. “He or she could also help you keep pace with what you want to read. When you wake up, you will find the completed summary in your in-box.” (I told him no one could be better than my longtime assistant, Maya Gorman, who sits ten feet away!)

Having your own personal remote executive assistant costs around $1,500 to $2,000 a month, and given the pool of Indian college grads from which Brickwork can recruit, the brainpower you can hire dollar-for-dollar is substantial. As Brickwork’s promotional material says, “India’s talent pool provides companies access to a broad spectrum of highly qualified people. In addition to fresh graduates, which are around 2.5 million per year, many qualified homemakers are entering the job market.” India’s business schools, it adds, produce around eighty-nine thousand MBAs per year.

“We’ve had a wonderful response,” said Kulkarni, with clients coming from two main areas. One is American health-care consultants, who often need lots of numbers crunched and PowerPoint presentations drawn up. The other, he said, are American investment banks and financial services companies, which often need to prepare glossy pamphlets with graphs to illustrate the benefits of an IPO or a proposed merger. In the case of a merger, Brickwork will prepare those sections of the report dealing with
general market conditions and trends, where most of the research can be gleaned off the Web and summarized in a standard format. "The judgment of how to price the deal will come from the investment bankers themselves," said Kulkarni. "We will do the lower-end work, and they will do the things that require critical judgment and experience, close to the market." The more projects his team of remote executive assistants engages in, the more knowledge they build up. They are full of ambition to do their higher problem solving as well, said Kulkarni. "The idea is to constantly learn. You are always taking an examination. There is no end to learning . . . There is no real end to what can be done by whom."

Unlike Columbus, I didn’t stop with India. After I got home, I decided to keep exploring the East for more signs that the world was flat. So after India, I was soon off to Tokyo, where I had a chance to interview Kenichi Ohmae, the legendary former McKinsey & Company consultant in Japan. Ohmae has left McKinsey and struck out on his own in business, Ohmae & Associates. And what do they do? Not consulting anymore, explained Ohmae. He is now spearheading a drive to outsource low-end Japanese jobs to Japanese-speaking call centers and service providers in China. "Say what?" I asked. "To China? Didn’t the Japanese once colonize China, leaving a very bad taste in the mouths of the Chinese?"

Well, yes, said Ohmae, but he explained that the Japanese also left behind a large number of Japanese speakers who have maintained a slice of Japanese culture, from sushi to karaoke, in northeastern China, particularly around the northeastern port city of Dalian. Dalian has become for Japan what Bangalore has become for America and the other English-speaking countries: outsourcing central. The Chinese may never forgive Japan for what it did to China in the last century, but the Chinese are so focused on leading the world in the next century that they are ready to brush up on their Japanese and take all the work Japan can outsource.

"The recruiting is quite easy," said Ohmae in early 2004. "About one-third of the people in this region [around Dalian] have taken Japanese as a second language in high school. So all of these Japanese companies are coming in." Ohmae’s company is doing primarily data-entry work in China, where Chinese workers take handwritten Japanese documents, which are scanned, faxed, or e-mailed over from Japan to Dalian, and then type them into a digital database in Japanese characters. Ohmae’s company has developed a software program that takes the data to be entered and breaks it down into packets. These packets can then be sent around China or Japan for typing, depending on the specialty required, and then reassembled at the company’s database in its Tokyo headquarters. "We have the ability to allocate the job to the person who knows the area best." Ohmae’s company even has contracts with more than seventy thousand housewives, some of them specialists in medical or legal terminologies, to do data-entry work at home. The firm has recently expanded into computer-aided designs for a Japanese housing company. "When you negotiate with the customer in Japan for building a house," he explained, "you would sketch out a floor plan—most of these companies don’t use computers." So the hand-drawn plans are sent electronically to China, where they are converted into digital designs, which then are e-mailed back to the Japanese building firm, which turns them into manufacturing blueprints. "We took the best-performing Chinese data operators," said Ohmae, "and now they are processing seventy houses a day."

Chinese doing computer drawings for Japanese homes, nearly seventy years after a rapacious Japanese army occupied China, razing many homes in the process. Maybe there is hope for this flat world . . .

I needed to see Dalian, this Bangalore of China, firsthand, so I kept moving around the East. Dalian is impressive not just for a Chinese city. With its wide boulevards, beautiful green spaces, and nexus of universities, technical colleges, and massive software park, Dalian would stand out in Silicon Valley. I had been here in 1998, but there had been so much new building since then that I did not recognize the place. Dalian, which is located about an hour’s flight northeast of Beijing, sym-
bolizes how rapidly China’s most modern cities—and there are still plenty of miserable, backward ones—are grabbing business as knowledge centers, not just as manufacturing hubs. The signs on the buildings tell the whole story: GE, Microsoft, Dell, SAP, HP, Sony, and Accenture—to name but a few—all are having backroom work done here to support their Asian operations, as well as new software research and development.

Because of its proximity to Japan and Korea, each only about an hour away by air, its large number of Japanese speakers, its abundance of Internet bandwidth, and many parks and a world-class golf course (all of which appeal to knowledge workers), Dalian has become an attractive locus for Japanese outsourcing. Japanese firms can hire three Chinese software engineers for the price of one in Japan and still have change to pay a roomful of call center operators ($90 a month starting salary). No wonder some twenty-eight hundred Japanese companies have set up operations here or teamed up with Chinese partners.

"I’ve taken a lot of American people to Dalian, and they are amazed at how fast the China economy is growing in this high-tech area," said Win Liu, director of U.S./EU projects for DHC, one of Dalian’s biggest homegrown software firms, which has expanded from thirty to twelve hundred employees in six years. "Americans don’t realize the challenge to the extent that they should."

Dalian’s dynamic mayor, Xia Deren, forty-nine, is a former college president. (For a Communist authoritarian system, China does a pretty good job of promoting people on merit. The Mandarin meritocratic culture here still runs very deep.) Over a traditional ten-course Chinese dinner at a local hotel, the mayor told me how far Dalian has come and just where he intends to take it. "We have twenty-two universities and colleges with over two hundred thousand students in Dalian," he explained. More than half those students graduate with engineering or science degrees, and even those who don’t, those who study history or literature, are still being directed to spend a year studying Japanese or English, plus computer science, so that they will be employable. The mayor estimated that more than half the residents of Dalian had access to the Internet at the office, home, or school.

"The Japanese enterprises originally started some data processing industries here," the mayor added, "and with this as a base they have now moved to R & D and software development . . . In the past one or two years, the software companies of the U.S. are also making some attempts to move outsourcing of software from the U.S. to our city . . . We are approaching and we are catching up with the Indians. Exports of software products [from Dalian] have been increasing by 50 percent annually. And China is now becoming the country that develops the largest number of university graduates. Though in general our English is not as competent as that of the Indian people, we have a bigger population, [so] we can pick out the most intelligent students who can speak the best English."

Are Dalian residents bothered by working for the Japanese, whose government has still never formally apologized for what the wartime Japanese government did to China?

"We will never forget that a historical war occurred between the two nations," he answered, "but when it comes to the field of economy, we only focus on the economic problems—especially if we talk about the software outsourcing business. If the U.S. and Japanese companies make their products in our city, we consider that to be a good thing. Our youngsters are trying to learn Japanese, to master this tool so they can compete with their Japanese counterparts to successfully land high-salary positions for themselves in the future."

The mayor then added for good measure, "My personal feeling is that Chinese youngsters are more ambitious than Japanese or American youngsters in recent years, but I don’t think they are ambitious enough, because they are not as ambitious as my generation. Because our generation, before they got into university and colleges, were sent to distant rural areas and factories and military teams, and went through a very hard time, so in terms of the spirit to overcome and face the hardships, [our generation had to have more ambition] than youngsters nowadays."

Mayor Xia had a charmingly direct way of describing the world, and although some of what he had to say gets lost in translation, he gets it—and Americans should too: "The rule of the market economy," this
Communist official explained to me, "is that if somewhere has the richest human resources and the cheapest labor, of course the enterprises and the businesses will naturally go there." In manufacturing, he pointed out, "Chinese people first were the employees and working for the big foreign manufacturers, and after several years, after we have learned all the processes and steps, we can start our own firms. Software will go down the same road... First we will have our young people employed by the foreigners, and then we will start our own companies. It is like building a building. Today, the U.S., you are the designers, the architects, and the developing countries are the bricklayers for the buildings. But one day I hope we will be the architects."

I just kept exploring—east and west. By the summer of 2004, I was in Colorado on vacation. I had heard about this new low-fare airline called JetBlue, which was launched in 1999. I had no idea where they operated, but I needed to fly between Washington and Atlanta, and couldn't quite get the times I wanted, so I decided to call JetBlue and see where exactly they flew. I confess I did have another motive. I had heard that JetBlue had outsourced its entire reservation system to housewives in Utah, and I wanted to check this out. So I dialed JetBlue reservations and had the following conversation with the agent:

"Hello, this is Dolly. Can I help you?" answered a grandmotherly voice.

"Yes, I would like to fly from Washington to Atlanta," I said. "Do you fly that route?"

"No, I'm sorry we don't. We fly from Washington to Ft. Lauderdale," said Dolly.

"How about Washington to New York City?" I asked.

"I'm sorry, we don't fly that route. We do fly from Washington to Oakland and Long Beach," said Dolly.

"Say, can I ask you something? Are you really at home? I read that JetBlue agents just work at home."

"Yes, I am," said Dolly in the most cheerful voice. (I later confirmed with JetBlue that her full name is Dolly Baker.) "I am sitting in my office upstairs in my house, looking out the window at a beautiful sunny day. Just five minutes ago someone called and asked me that same question and I told them and they said, 'Good, I thought you were going to tell me you were in New Delhi.'"

"Where do you live?" I asked.

"Salt Lake City, Utah," said Dolly. "We have a two-story home, and I love working here, especially in the winter when the snow is swirling and I am up here in the office at home."

"How do you get such a job?" I asked.

"You know, they don't advertise," said Dolly in the sweetest possible voice. "It's all by word of mouth. I worked for the state government and I retired, and [after a little while] I thought I have to do something else and I just love it."

David Neeleman, the founder and CEO of JetBlue Airways Corp., has a name for all this. He calls it "homesourcing." JetBlue now has four hundred reservation agents, like Dolly, working at home in the Salt Lake City area, taking reservations—in between babysitting, exercising, writing novels, and cooking dinner.

A few months later I visited Neeleman at JetBlue's headquarters in New York, and he explained to me the virtues of homesourcing, which he actually started at Morris Air, his first venture in the airline business. (It was bought by Southwest.) "We had 250 people in their homes doing reservations at Morris Air," said Neeleman. "They were 30 percent more productive—they take 30 percent more bookings, by just being happier. They were more loyal and there was less attrition. So when I started JetBlue, I said, 'We are going to have 100 percent reservation at home.'"

Neeleman has a personal reason for wanting to do this. He is a Mormon and believes that society will be better off if more mothers are able to stay at home with their young children but are given a chance to be wage earners at the same time. So he based his home reservations system in Salt Lake City, where the vast majority of the women are Mormons and many are stay-at-home mothers. Home reservationists work twenty-five hours a week and have to come into the JetBlue regional office in Salt Lake City for four hours a month to learn new skills and be brought up to date on what is going on inside the company.
"We will never outsource to India," said Neeleman. "The quality we can get here is far superior . . . [Employers] are more willing to outsource to India than to their own homes, and I can't understand that. Somehow they think that people need to be sitting in front of them or some boss they have designated. The productivity we get here more than makes up for the India [wage] factor."

A Los Angeles Times story about JetBlue (May 9, 2004) noted that "in 1997, 11.6 million employees of U.S. companies worked from home at least part of the time. Today, that number has soared to 23.5 million—16% of the American labor force. (Meanwhile, the ranks of the self-employed, who often work from home, have swelled during the same period—to 23.4 million from 18 million.) In some eyes, homesourcing and outsourcing aren't so much competing strategies as they are different manifestations of the same thing: a relentless push by corporate America to lower costs and increase efficiency, wherever that may lead."

That is exactly what I was learning on my own travels: Homesourcing to Salt Lake City and outsourcing to Bangalore were just flip sides of the same coin—sourcing. And the new, new thing, I was also learning, is the degree to which it is now possible for companies and individuals to source work anywhere.

I just kept moving. In the fall of 2004, I accompanied the chairman of the Joint Chiefs of Staff, General Richard Myers, on a tour of hot spots in Iraq. We visited Baghdad, the U.S. military headquarters in Fallujah, and the 24th Marine Expeditionary Unit encampment outside Babil, in the heart of Iraq's so-called Sunni Triangle. The makeshift 24th MEU base is a sort of Fort Apache, in the middle of a pretty hostile Iraqi Sunni Muslim population. While General Myers was meeting with officers and enlisted men there, I was free to walk around the base, and eventually I wandered into the command center, where my eye was immediately caught by a large flat-screen TV. On the screen was a live TV feed that looked to be coming from some kind of overhead camera. It showed some people moving around behind a house. Also on the screen, along the right side, was an active instant-messaging chat room, which seemed to be discussing the scene on the TV.

"What is that?" I asked the soldier who was carefully monitoring all the images from a laptop. He explained that a U.S. Predator drone—a small pilotless aircraft with a high-power television camera—was flying over an Iraqi village, in the 24th MEU's area of operation, and feeding real-time intelligence images back to his laptop and this flat screen. This drone was actually being "flown" and manipulated by an expert who was sitting back at Nellis Air Force Base in Las Vegas, Nevada. That's right, the drone over Iraq was actually being remotely directed from Las Vegas. Meanwhile, the video images it was beaming back were being watched simultaneously by the 24th MEU, United States Central Command headquarters in Tampa, CentCom regional headquarters in Qatar, in the Pentagon, and probably also at the CIA. The different analysts around the world were conducting an online chat about how to interpret what was going on and what to do about it. It was their conversation that was scrolling down the right side of the screen.

Before I could even express my amazement, another officer traveling with us took me aback by saying that this technology had "flattened" the military hierarchy—by giving so much information to the low-level officer, or even enlisted man, who was operating the computer, and empowering him to make decisions about the information he was gathering. While I'm sure that no first lieutenant is going to be allowed to start a firefight without consulting superiors, the days when only senior officers had the big picture are over. The military playing field is being leveled.

I told this story to my friend Nick Burns, the U.S. ambassador to NATO and a loyal member of the Red Sox Nation. Nick told me he was at CentCom headquarters in Qatar in April 2004, being briefed by General John Abizaid and his staff. Abizaid's team was seated across the table from Nick with four flat-screen TVs behind them. The first three had overhead images being relayed in real time from different sectors of Iraq by Predator drones. The last one, which Nick was focused on, was showing a Yankees–Red Sox game.
On one screen it was Pedro Martinez versus Derek Jeter, and on the other three it was Jihadists versus the First Cavalry.

**Flatburgers and Fries**

I kept moving—all the way back to my home in Bethesda, Maryland. By the time I settled back into my house from this journey to the edges of the earth, my head was spinning. But no sooner was I home than more signs of the flattening came knocking at my door. Some came in the form of headlines that would unnerve any parent concerned about where his college-age children are going to fit in. For instance, Forrester Research, Inc., was projecting that more than 3 million service and professional jobs would move out of the country by 2015. But my jaw really dropped when I read a July 19, 2004, article from the *International Herald Tribune* headlined: "Want Fries With Outsourcing?"

"Pull off U.S. Interstate Highway 55 near Cape Girardeau, Missouri, and into the drive-through lane of a McDonald’s next to the highway and you’ll get fast, friendly service, even though the person taking your order is not in the restaurant—or even in Missouri," the article said. "The order taker is in a call center in Colorado Springs, more than 900 miles, or 1,450 kilometers, away, connected to the customer and to the workers preparing the food by high-speed data lines. Even some restaurant jobs, it seems, are not immune to outsourcing.

"The man who owns the Cape Girardeau restaurant, Shannon Davis, has linked it and three other of his 12 McDonald’s franchises to the Colorado call center, which is run by another McDonald’s franchisee, Steven Bigari. And he did it for the same reasons that other business owners have embraced call centers: lower costs, greater speed and fewer mistakes.

"Cheap, quick and reliable telecommunications lines let the order takers in Colorado Springs converse with customers in Missouri, take an electronic snapshot of them, display their order on a screen to make sure it is right, then forward the order and the photo to the restaurant kitchen. The photo is destroyed as soon as the order is completed, Bigari said. People picking up their burgers never know that their order traverses two states and bounces back before they can even start driving to the pickup window.

"Davis said that he had dreamed of doing something like this for more than a decade. ‘We could not wait to go with it,’ he added. Bigari, who created the call center for his own restaurants, was happy to oblige—for a small fee per transaction.”

The article noted that McDonald’s Corp. said it found the call center idea interesting enough to start a test with three stores near its headquarters in Oak Brook, Illinois, with different software from that used by Bigari. "Jim Sappington, a McDonald’s vice president for information technology, said that it was ‘way, way too early’ to tell if the call center idea would work across the thirteen thousand McDonald’s restaurants in the United States . . . Still, franchisees of two other McDonald’s restaurants, beyond Davis’s, have outsourced their drive-through ordering to Bigari in Colorado Springs. (The other restaurants are in Brainerd, Minnesota, and Norwood, Massachusetts.) Central to the system’s success, Bigari said, is the way it pairs customers’ photos with their orders; by increasing accuracy, the system cuts down on the number of complaints and therefore makes the service faster. In the fast-food business, time is truly money: shaving even five seconds off the processing time of an order is significant," the article noted. "Bigari said he had cut order time in his dual-lane drive-throughs by slightly more than 30 seconds, to about 1 minute, 5 seconds, on average. That’s less than half the average of 2 minutes, 36 seconds, for all McDonald’s, and among the fastest of any franchise in the country, according to QSRweb.com, which tracks such things. His drive-throughs now handle 260 cars an hour, Bigari said, 30 more than they did before he started the call center . . . Though his operators earn, on average, 40 cents an hour more than his line employees, he has cut his overall labor costs by a percentage point, even as drive-through sales have increased . . . Tests conducted by outside companies found that Bigari’s drive-throughs now make mistakes on fewer than
lights.

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Sunday-morning shows, the major networks-CBS, NBC, ABC, CNN,

and Fox-always send crews to one another's studios to grab exit inter­

views with the guests. But this young man, Schieffer explained, was not

from a major network. He politely introduced himself as a reporter for a

minutes.

Schieffer, being a polite fellow, said sure. The young

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young man had no camera. He didn't need one. He turned his cell

phone around and snapped Schieffer's picture.

“So I came in the next morning and looked up this Web site and

there was my picture and the interview and there were already three

hundred comments about it,” said Schieffer, who, though keenly aware

of online journalism, was nevertheless taken aback at the incredibly fast,

low-cost, and solo manner in which this young man had put him up in

lights.

Some of the signs of flattening I encountered back home, though, had

nothing to do with economics. On October 3, 2004, I appeared on

the CBS News Sunday morning show Face the Nation, hosted by veteran

CBS correspondent Bob Schieffer. CBS had been in the news a lot

in previous weeks because of Dan Rather’s 60 Minutes report about

President George W. Bush’s Air National Guard service that turned out
to be based on bogus documents. After the show that Sunday, Schieffer

mentioned that the oddest thing had happened to him the week before.

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lights.

I was intrigued by this story, so I tracked down the young man from

InDC Journal. His name is Bill Ardolino, and he is a very thoughtful
guy. I conducted my own interview with him online—how else?—and
began by asking about what equipment he was using as a one-man

network/newspaper.

“I used a minuscule MP3 player/digital recorder (three and a half

inches by two inches) to get the recording, and a separate small digital

camera phone to snap his picture,” said Ardolino. “Not quite as sexy as an

all-in-one phone/camera/recorder (which does exist), but a statement on

the ubiquity and miniaturization of technology nonetheless. I carry this

equipment around D.C. at all times because, hey, you never know.

What’s perhaps more startling is how well Mr. Schieffer thought on his

feet, after being jumped on by some stranger with interview questions.

He blew me away.”

Ardolino said the MP3 player cost him about $125. It is “primarily
designed to play music,” he explained, but it also “comes prepackaged as

digital recorder that creates a WAV sound file that can be uploaded

back to a computer . . . Basically, I’d say that the barrier to entry to do

journalism that requires portable, ad hoc recording equipment, is [now]

about $100—$200 to $300 if you add a camera, $400 to $500 for a pretty

good recorder and a pretty nice camera. [But] $200 is all that you need to

get the job done.”

What prompted him to become his own news network?

“Being an independent journalist is a hobby that sprang from my

frustration about biased, incomplete, selective, and/or incompetent in­

formation gathering by the mainstream media,” explained Ardolino,

who describes himself as a “center-right libertarian.” “Independent jour­
nalism and its relative, blogging, are expressions of market forces—a

need is not being met by current information sources. I started taking

pictures and doing interviews of the antiwar rallies in D.C., because the

media was grossly misrepresenting the nature of the groups that were

organizing the gatherings—unrepentant Marxists, explicit and implicit

supporters of terror, etc. I originally chose to use humor as a device, but

I’ve since branched out. Do I have more power, power to get my message

out, yes. The Schieffer interview actually brought in about twenty-five
In 2004: “The world as we knew it is over. Something wilder, more engaging and infinitely more satisfying to individual participants is arising alongside the old order.”

I offer the Schieffer-Ardolino encounter as just one example of how the flattening of the world has happened faster and changed rules, roles, and relationships more quickly than we could have imagined. And, though I know it is a cliché, I have to say it nevertheless: You ain’t seen nothin’ yet. As I detail in the next chapter, we are entering a phase where we are going to see the digitization, virtualization, and automation of almost everything. The gains in productivity will be staggering for those countries, companies, and individuals who can absorb the new technological tools. And we are entering a phase where more people than ever before in the history of the world are going to have access to these tools—as innovators, as collaborators, and, alas, even as terrorists. You say you want a revolution? Well, the real information revolution is about to begin. I call this new phase Globalization 3.0 because it followed Globalization 2.0, but I think this new era of globalization will prove to be such a difference of degree that it will be seen, in time, as a difference in kind. That is why I introduced the idea that the world has gone from round to flat. Everywhere you turn, hierarchies are being challenged from below or transforming themselves from top-down structures into more horizontal and collaborative ones.

“Globalization is the word we came up with to describe the changing relationships between governments and big businesses,” said David Rothkopf, a former senior Department of Commerce official in the Clinton administration and now a private strategic consultant. “But what is going on today is a much broader, much more profound phenomenon.” It is not simply about how governments, business, and people communicate, not just about how organizations interact, but is about the emergence of completely new social, political, and business models. “It is about things that impact some of the deepest, most ingrained aspects of society right down to the nature of the social contract,” added Rothkopf. “What happens if the political entity in which you are located no longer corresponds to a job that takes place in cyberspace, or no longer really encompasses workers collaborating with other workers in different corners of the globe, or no longer really captures products produced in multiple places simultaneously? Who regulates the work? Who taxes it? Who should benefit from those taxes?”

If I am right about the flattening of the world, it will be remembered as one of those fundamental changes—like the rise of the nation-state or the Industrial Revolution—each of which, in its day, noted Rothkopf,
produced changes in the role of individuals, the role and form of governments, the way we innovated, the way we conducted business, the role of women, the way we fought wars, the way we educated ourselves, the way religion responded, the way art was expressed, the way science and research were conducted, not to mention the political labels we assigned to ourselves and to our opponents. "There are certain pivot points or watersheds in history that are greater than others because the changes they produced were so sweeping, multifaceted, and hard to predict at the time," Rothkopf said.

If the prospect of this flattening—and all of the pressures, dislocations, and opportunities accompanying it—causes you unease about the future, you are neither alone nor wrong. Whenever civilization has gone through one of these disruptive, dislocating technological revolutions—like Gutenberg’s introduction of the printing press—the whole world has changed in profound ways. But there is something about the flattening of the world that is going to be qualitatively different from other such profound changes: the speed and breadth with which it is taking hold. The introduction of printing happened over a period of decades and for a long time affected only a relatively small part of the planet. Same with the Industrial Revolution. This flattening process is happening at warp speed and directly or indirectly touching a lot more people on the planet at once. The faster and broader this transition to a new era, the more likely is the potential for disruption, as opposed to an orderly transfer of power from the old winners to the new winners.

To put it another way, the experiences of the high-tech companies in the last few decades who failed to navigate the rapid changes brought about in their marketplace by these types of forces may be a warning to all the businesses, institutions, and nation-states that are now facing these inevitable, even predictable, changes but lack the leadership, flexibility, and imagination to adapt—not because they are not smart or aware, but because the speed of change is simply overwhelming them.

And that is why the great challenge for our time will be to absorb these changes in ways that do not overwhelm people but also do not leave them behind. None of this will be easy. But this is our task. It is inevitable and unavoidable. It is the ambition of this book to offer a framework for how to think about it and manage it to our maximum benefit.

I have shared with you in this chapter how I personally discovered that the world is flat. The next chapter details how it got that way.
iii. Anuradha Mathur: “The Indian Maidan – neither wilderness nor home”
Neither Wilderness nor Home: The Indian Maidan

Anuradha Mathur

As cities and towns across India continue to both expand and grow denser, wide open areas are still an integral part of the urban fabric. Often more than a square mile in area, these public lands are neither cultivated parks nor neglected wastelands. They are something other. In Calcutta, one of the most congested cities of the world, a vast open landscape still occupies over two square miles in the heart of the city despite encroachments by buildings, parks, clubs, and monuments. Similarly, in Bombay, a series of grassy plains stretches across the city center; at their narrowest, these open spaces measure about 600 feet and in all constitute at least 150 acres of open ground.

The character of these spaces is modest and devoid of embellishment. Their simple emptiness stands in stark contrast to the intricate urban fabric surrounding them. Rarely thought of or described as designed landscapes, these places do not call attention to themselves, yet they continue to support a wide spectrum of urban life from cricket, football, and other sports to trade fairs and circuses, from political rallies and religious congregations to the grazing of goats. These anonymous and accommodating grounds are called maidans.

A maidan is commonly described as a “large plain,” an “open field,” or a “vast ground.” While such spaces do not appear to be obviously constructed territories, acts of leveling and clearing extend their limits to distant horizons and establish a clear domain. The simple clarity and openness of the maidan is under threat, however, as modern development pressures seek to reformulate these territories according to functional, economic, and aesthetic criteria.

Maidans can be traced in Indian cities following the influence of Islam. Even though the Arab armies reached the borders of India in the eighth century, sustained contact with the new religion of Islam occurred after the Afghan invasion in the eleventh century. The early Muslim rulers from Central Asia and, later, the Mughals from Persia, brought with them the space of a vast open landscape enclosed within a settlement. They called these spaces maidans. Distinct evidence of Islamic maidans dating back to the fifteenth century can be found today in Indian cities such as Ahmedabad, Agra, and Shahjehanabad.

Fig. 1. Maidan-i-Shah, Ispahan, as nomadic site. Source: Mme Dieulafoy, La Perse (1887).
The advent of the British during the seventeenth century brought to India new attitudes toward military protection and urban patterns. These patterns included vast open grounds within the urban fabric. The notion of commons and recreational space was, of course, traditional to English ways of life. The memory of these public spaces, refracted through the military and political requirements of colonialism, encouraged the emergence of another form of open ground in colonial towns like Bombay, Calcutta, and Madras. The word *maidan* became part of colonial Indian vocabulary during the eighteenth century to describe these spaces. Although the Islamic and colonial maidans were the result of different spatial, cultural, and political histories, there is little physical difference between the two today.

In what follows, I trace the development and evolution of the Indian *maidan*. I argue that the *maidan* is both nomadic and collective. It is what Ivan Illich calls "commons," or:

...that part of the environment that lay beyond a person's own threshold and outside his own possession, but to which, however, that person had a recognized claim of usage—not to produce commodities but to provide for the subsistence of kin. Neither wilderness nor home is commons, but that part of the environment for which customary law exacts specific forms of community respect.

These places that are neither wilderness nor home are being threatened today by the demands of modern urbanization, and yet they offer the only real hope of individual freedom and collective engagement in the enclosure of the city. They are as relevant today, and for cities other than those in India, as they have ever been.

### The Nomadic and the Collective Landscape: Camp and City

* Maidan * is a word of Persian origin. It conjures up images of a plain, a meadow, a ground, or a field. As a battleground it is called *maidan-e-khuris*; as a branding ground it is *dag-gah*; as a military camp it assumes the name of *lahkhar*; as a sports field it is a *maidan-wazirzah*, and as a parade ground it is called a *maidan-e-maashq*. Maidans were primarily associated with pilgrims, traders, and militia, and today the *maidan* has come to embrace all these and many other uses.

One early recorded manifestation of the *maidan* derives from the ninth century. Ahmad Ibn Tulun (868–906) is remembered for his creation of a very large *maidan* in the military extension of the town of Fustat just outside Cairo. Later *maidans* were usually attached either to the pleasure palace on the outskirts of the city or in front of a citadel within the city. Travelers to this region through the fifteenth and seventeenth centuries gave fragmented accounts of other *maidans*. The most striking and well documented of these is in Ispahan (Fig. 1).

"Let me lead you," wrote a traveler at that time, "into the Maidan...without doubt as spacious, pleasant and aromatic a bazaar as any in the Universe." The Maidan-i-Shah was part of the extension to the town of Ispahan by Shah Abbas (1587–1629) and built during the seventeenth century. Besides being a "pleasant and aromatic" marketplace covered with temporary stalls that displayed wares ranging from food and spices to mules and horses, the Maidan-i-Shah was also used for public processions and religious festivals. At other times the *maidan* was a polo ground, the exclusive domain of horses and their riders. The ground was often under water in winter, while in "summer men with watering cans laid the dust, which was never excessive because the ground was covered with fine river sand." Variously described as a "park," "square," and "market," even "hippodrome," the *maidan* appeared to be all yet none of these. The Maidan-i-Shah that survives in Ispahan today has gone through several "beautification" schemes, with paving and planting that fragment it into parterres. Neither a *bagh* (Persian garden) nor a *maidan*, it is today a generic site for garaging automobiles in the city.

The Muslim city of Ahmedabad was laid out in 1411 by the Mughal ruler Ahmed Shah on the banks of the Sabarmati river in what is today northwestern India. Ahmedabad is probably one of the few historically Muslim cities in India where it is still possible to trace under layers of urban fabric the outlines of a *maidan* that had once been at the center of its life. Due to the lack of cartographic documents, the evolution of the city can only be constructed from brief descriptive accounts in memoirs, travel documents, and archaeological records. A fort and the Jumma Masjid (or Friday Mosque) formed the two dominant foci of the settlement. The area between them was structured along a monumental axis extending from the entrance of the fort past the mosque. It included the main bazaar street (also referred to as the processional way) and a vast rectangular *maidan* that connected and separated the religious and royal centers of the city. A triple-arched gateway, the Teen Darwaza, formed a threshold between the bazaar street and the *maidan*.

Visited by many travelers during the sixteenth and seventeenth centuries, Ahmedabad was praised for its wealth and grandeur, although Emperor
Jehangir was less impressed. Following his visit in 1617, the Emperor wanted to rename it Gardabad, or "abode of dust." A traveler from northern Germany, Albert J. de Mandelslo, who visited Ahmedabad twice in 1638, leaves a more enthusiastic account of the various sights of the city, including the Maidan Shah:

The Maidan Shah, or the King’s Market, is at least 1600 feet long and half as many broad, and beset all about with rows of palm-trees and date-trees, intermixed with citron trees and orange-trees, whereof there are many in the several streets; which is not only pleasant to the sight by the delightful prospect it affords, but also makes walking along them more convenient by reasons of the coolness. 

A French traveler, M. de Thevenot, who was in Ahmedabad twenty-eight years later in 1666, provides a different account. He describes the maidan as the "King’s Square" and as measuring "400 paces in breadth and 700 in length [2,100 feet by 1,200 feet] with trees planted on all sides. The gate of the Castle is on the west side opposite to the three arches, and the gate of the Caravan-serai on the South." Despite these varied descriptions, the surface of the maidan was recognized as a flat plain of earth and at its center was a karang, or water tank or well.

During the reign of the Muslim kings, the maidan was a place where "great feudalatories or foreign embassies assembled before approaching the presence," according to historian Sir Theodore. Hope. Whereas the maidan was acknowledged as a place outside the royal center, it was used as a ceremonial place by the ruler who "enthroned on the terrace, mustered the troops for martial enterprises and gala day reviews, or held splendid court in the cool of the evening besides the splashing fountain." In spite of this royal patronage, the maidan was a place open to all for gathering and thoroughfare, where the royalty and commoners met. A site for temporary markets as well as the Khas Bazar, the maidan was also the venue for the weekly Gujar (gypsy) fair. This fair still takes place today on the dry bed of the Sabarmati river, and remains a popular feature of Ahmedabad.

Based on a survey conducted by the English in 1825, one of the earliest maps available of Ahmedabad shows the maidan as no longer a vast rectangular plain but now a triangular space, the land near the Teen Darwaza having been steadily claimed for permanent structures. As recalled by the elders of the city, the maidan, though much diminished, remained an important place for political meetings, games of cricket, and temporary bazaars. The only traces of the existence of a once large plain in the heart of the city are the Teen Darwaza, which still stands majestic amid the roaring traffic and ruins of the fort. One can still measure between these relics the original extent of the Maidan Shah.

Intrinsically one of the main institutions of the city, the maidan was articulated as a geometrical space. Its surface was barren earth or fine sand. Its center was free of any monument or pavilion, unlike the char bagh (Persian garden), although, as already mentioned, it was frequently marked by a well or water tank. Trees were not common, but where they did exist they were arranged on the periphery so as to contain and not fragment the essentially empty quality of the plain.

Often described by Western travelers and historians as a "great square," the maidan cannot be described as a spatial entity in the hierarchy of squares and streets. The maidan is not a distinct enclosure, like a courtyard. Although attempts were made to maintain a visual structure, the peripheral boundaries of the maidan are more decorative frames than spatial figures. In other words, although it is a bounded space within the city, the maidan does not exist as a perceptible room. This lack of definition is, perhaps, appropriate, for in a landscape where horizons are broad, the maidan is a place born of a desire to establish human domain by marking boundaries while maintaining a sense of immensity—a phenomenal landscape quality retained from nomadic ways of life.

As a ground for pitching tents, the maidan accommodates the nomadic spirit within the city. Conversely, as temporary reference points within a disorienting expanse, the tent structures make bearable the uncertainties of the maidan. The tent is a form of shelter that allows for the migratory existence of caravans, military camps, and religious pilgrimages. It was a natural form of dwelling for the Muslim rulers, who often found themselves "in camp" as pilgrims and warriors. The palaces of the Sultans were often comparable to glorified tents; Ali Qapi, the name of Shah Abbas's palace on the edge of the Maidan-i-Shah at Isphahan, literally means the "royal tent" (Fig. 2).

The tent is a mode of construction that is found across time and territories whenever there are migratory events and the need for temporary dwellings. It is commonly described as "a portable shelter of skin, coarse cloth, esp. canvas supported by one or more poles and usually extended by ropes fastened to pegs in the ground." The portability of a tent and its ease of installation draws attention to the nature of the ground it is pegged into. The temporary nature of this
attachment is complemented by the permanence of the ground, which is made of leveled and compacted soil or sand. The ground accommodates trampling, pegging, riding, and thoroughfare via its capacity to remain level and firm. Soil that also allows for the absorption of water and other urban traces makes this vast and expansive ground also deep.16

The notion of depth and material become as significant as the vast horizon for the embodiment of nomadic ground. Before the science of geology presented the depth of soil as a naked transact, depth was experienced through the sounding of wells. While monuments in a maidan might be said to oppose its expansive spirit, wells reinforce its sense of limitlessness. The well in a maidan connects ground and sky through water. Further, the presence of water, however scarce, allows this sometimes dreary and parched ground to be temporarily habitable. As the vertical axis, the well anchors the horizontal expanse. Its presence is often hidden from a cursory glance and revealed only as one traverses this ground as a nomad.

The maidan, then, can be seen as the outcome of a need for the nomads-turned-settlers to establish an endurable slice of the infinite desert in their settlement. This brings us to the aspiration for anonymity—the anonymity of the vast horizon that accommodates not just the nomadic spirit but the collective as well.

Pilgrimage and Prayer

Islam literally means “subjugation to Allah,” thus propagating the equality of all persons before Him. It perpetuates a sense of collective gathering as the basis of its liturgical practice. Prayer that comprises mental, verbal, and physical subjugation is performed in a hierarchical range of services: by the individual, the community, the entire population of a city, and the whole Muslim world. The primary institution for prayer in the Islamic world is the Jami Masjid—the name means “collective” or “assembly mosque”—which is the site of weekly prayer every Friday, the day of assembly (Yawn-al-Jama). The plan of the mosque, reflecting its congregational nature, consists of a large hall preceded by an immense courtyard. The congregation, oriented toward Mecca by the mihrab (niche) in the qibla (wall), focuses on the speaker.

The musalla (or idgah) is used for prayer during the two major festivals, id-al-Fitr and id-al-Adha, for the assembly of the entire population of the city. The musalla consists of the essential components of a mosque: the qibla wall and a mihrab bordering a vast expanse of ground and providing a sense of orientation. The maidan is used on these two days of the year, with a canvas qibla temporarily erected as the venue for prayer. Here, all Muslims of the city gather and face Mecca, standing shoulder to shoulder, to pray.

According to Islamic creed, the doctrine of resurrection is second only to that of Allah’s creation of the world. The Resurrection (Al-Qiyama) and the Judgment (Hisab) will take place on a plain of assemblage called the Maidan-e-Hashr, where multitudes will gather for the final divine decision. It is interesting to note that a similar assembly is held every year at the time of the annual pilgrimage to Mecca at the Maidan-e-Arafat. Pilgrims still trek to Arafat, where Prophet Muhammad delivered His farewell sermon, as Muslims have done for centuries. Here is the greatest single assembly of people from all corners of the world ever to meet at one place, on one day and for one purpose.

The Maidan-e-Arafat is enclosed by low mountains encircling an enormous barren plain, in the midst of which rises one solitary mount: the Mount of Mercy. During the Pilgrimage, this plain transforms into a tented city of more than two million people. As far as the eye can see, the Maidan-e-Arafat is a moving mass of pilgrims, the ultimate gathering place for the entire Islamic world. Here, the nomadic grounds of the pilgrim and the collective grounds of faith come together explicitly in a physical landscape that accommodates both.

Sport and Commons

There is yet another expression of maidan that emerged out of a context very different from the ones previously discussed, but which has nonetheless influenced the modern notion of maidan in India. In a landscape that was so thickly vegetated that one had to either raise or level the ground in order to broaden one’s horizon, the maidan appeared as a clearing. The limits of this clearing established a defensible territory that remained at the threshold of an infinite domain.

In the early English settlements in India, vast clearings appeared in front of the city’s fort more out of military concerns than a sense of community. In Bombay and, later, in Calcutta, these grounds were constructed outside the fortifica-
tions; trees were cut, swamps were drained, and ground was leveled to form a vast plain. This feature was called the Esplanade. Esplanade derives from the Latin esplanare, which means "to level" and commonly implies open space designed for public walks or drives. Esplanade is also a military term used to signify "an open level space of ground, separating the citadel of a fortress from the town, and intended to prevent any person approaching the town without being seen from the citadel." Esplanades that later formed some of the great maidans in India were thus first constructed as a distancing device, a no-man's-land (Fig. 3).

Due to military requirements, no permanent structures could be erected on the maidan. An unenthusiastic commentator in Bombay once wrote that "the dreary, treeless sun-burnt wilderness of the Esplanade during the hot season with its few dusty narrow roads leading to the native town is appalling." In time, however, the wind-swept open expanse of the maidan acquired social as well as military significance for both the European and the Parsee populations of Bombay. It was most likely the oppressive climate, together with a desire for nomadic freedom, that drove the population of the overcrowded and airless Fort of Bombay to the maidan. Here they pitched camp—sometimes elaborate bamboo bungalows—to spend long summer (for shade) and winter (for shelter) months. These esplanade tents became a distinctive feature of Bombay. Even into the late 1890s, long after the destruction of the Fort walls, "tents still rose like mushrooms ... every cold weather." For the English, with their enthusiasm for outdoor recreation, the maidan became a primary venue for gatherings, promenading, and sports (Fig. 4).

In the evolution of many colonial towns, the vast clearings of the maidans played a pivotal role in the transition from a static pattern of the fortified enclave to a more dynamic one of open settlement. Although many maidans were partially built over, large parcels were retained and formed a major structuring element for the new developments that tended to grow around or across its expanse. By the early twentieth century, the maidans in Bombay had lost their sea view as well as their evening recreators, but sportsmen continued to be the most zealous supporters of the open ground. Their enthusiasm encouraged gymkhanas, which during in the Bombay Presidency described any club with outdoor facilities for sport. A number of gymkhana for Europeans catered to specific outdoor sport such as golf, cricket, and pigeon shooting. Most of these had modest beginnings in temporary pavilions erected on the maidan.

Unlike Bombay, Calcutta was at no time of its development a fortified town. The old Fort William was merely a token structure. A gigantic new fort was built in the 1780s; jungle was cleared, swamps were drained, and existing Indian dwellings were removed to create a clear range of fire around this new Fort William. Thus, Calcutta, like Bombay and Madras, acquired an esplanade as a consequence of military requirements. There was, however, a fundamental difference in the structural pattern of Calcutta compared to the other settlements of the East India Company. The new fort at Calcutta was purely a military construction and did not accommodate the principal buildings of the township as they did in Bombay. The official buildings as well as the houses of the inhabitants were allowed to be constructed across the wide expanse of the esplanade (Fig. 5).

"Ostensibly we the British...were no more than merchants.... But slowly and surely we were changing, the role of a purely mercantile community for that of a great political power," wrote an unnamed author at the turn of the nineteenth century. The growth of imperial power, as well as the desire and need to express this power, added other dimensions to the perception and use of the

Fig. 3. French plan of Bombay Island, 1767, showing the clearing of the esplanade outside the Bombay fort. Source: The Bombay Gazetteer, 1.

Fig. 4 (top). Engraving of the Bombay Green as maidan within the Fort, 1767. Source: James Forbes, Oriental Memoirs IV (1813).

Within the stratified colonial world, sport became a socially accepted means by which "individuals segregated by sex, social rank, and race could interact and communicate without compromising their individual position."³⁹

The Idea of Maidan
Maidans have emerged as a result of human intervention directed not toward the addition of identity, events, or character to a level ground but rather toward keeping land free and indeterminate. In landscapes where topography is uneven and horizons limited, mounds are leveled, ditches are filled, and vegetation is cleared to create open and unobstructed plains. Conversely, in landscapes where the horizons are broad, an expanse is marked and cordoned off to be protected as a generous, unfragmented space. In both cases the aspiration is to maintain an anonymous expanse that extends the human horizon beyond capture. Such scale and simplicity is almost inconceivable to many that envision public space in more hierarchical and formal terms.

Though maidans were used by two very different regimes in India as a tool for power, it would be an error to construe these spaces as expressions of power (as in a fort or palace). Rather, maidans reflect the collective aspirations of a people. Though partly encroached upon today, maidans still remain vast and ocean-like within the density of many Indian cities. The need for an indeterminate no-man’s-land, a nomadic field, and a shared collective space continues to be important. In the plan of the contemporary Indian city, the maidan is still an unspecified part of the urban program; it is left free of any permanent structures or claims, a vast plain in the heart of the city. As a recent writer noted, "It might be a dangerous place for someone with a touch of agoraphobia."³⁷

In cities of increasingly circumscribed social, racial, or economic enclaves, the maidan has come to both symbolize and provide neutral territory, a ground where people can gather on a common plane. It is a place that offers freedom without obligation. This ability to accommodate a diverse range of social and political structures makes the maidan an extremely significant space in the city. It is a place where people can "touch the spirit of commonness."³⁸

The freedom afforded by the maidan has limits, however, regarding its occupation by the individual. The vast, nondescript void and lack of focus can be disorienting and appear purposeless. Yet the expanse and anonymity of the place is transformed daily by cricket games and visiting fairs or circuses (Fig. 6). At other times, the maidan gathers the full scale of the city, be it a religious congregation on Ramzan Id, a large political rally, or Gandhi launching his Quit India movement. Here, the maidan transforms into a sea of humanity
before receding once again into quiet emptiness (Fig. 7).

The constructed ground of Indian cities has for centuries accommodated the maidan and its changing functions. The modern zeal for economic development and objectification of commodities is making the maidan a less welcome phenomenon, however. Even so, the idea of maidan still has significant power in the collective imagination of Indian cities. Thus, following the disappearance of many historical maidans, people continue to appropriate landscapes that lend themselves to both nomadic and collective life. For the citizens of the crowded city of Ahmedabad, which has expanded far across the banks of the Sabarmati river, the riverbed itself is today the maidan (Fig. 8). This is a vast, dry plain for most of the year, except during the monsoons. The flat, ephemeral territory offers freedom within the enclosure of the city and extends the limits of the horizon in time (Fig. 9).

Engaging Landscape

There is much that the maidan can offer those who are concerned for the public realm today, not only in Indian cities but in Western cities as well. City landscapes are being increasingly commodified, monitored, and constructed in ways that discourage spontaneous appropriation and unplanned transformation. In resistance to this over-determinism, a few contemporary landscape architects and urbanists are seeking to promote qualities of indeterminacy, open-endedness, and temporality in their work. Their aim is to engender and support engagement rather than objectification. These efforts are particularly applicable to large-scale public, decommissioned, and marginalized lands within or at the edge of cities. Such spaces resist popular prescriptions of use, identity, and meaning. Is this shift from form to events, permanence to change, identity to void, a recognition for the need to recover essential territories in the city that are “neither wilderness nor home?”

Maidan exemplifies engagement and negotiation between built claimed ground and shifting fluxed ground, the nomad and the sedentary, the collective and the individual human spirit. The spirit of the nomad, untempered by the collective aspirations of the city, could be as destructive as a collective spirit that does not allow a person freedom to wander. Can we still accommodate and value the anonymity of the nomadic and the aspiration of the collective spirit within a constructed landscape? Can we nurture and reinvent the idea of maidan in the enclosure of cities elsewhere as on the dry, dusty plains of India?

Notes
1 The first to arrive was Mohammed Bin Kasim, who conquered the Indus Valley up to Multan. This remained the extent of the Arab conquest for several hundred years. The invasion of Mahmud of Ghazni in the eleventh century was more significant for the spread of Islam in India. Toward the end of the twelfth century, a fresh wave of invasions came from the northwest, headed by the Afghan chief Shahab-ud-din Ghori, who decisively established Muslim rule in India. The Sultans of Delhi, called the “Slave Kings,” followed him and together consolidated the Muslim Empire. Following them was Allaudin Khilji, who conquered Gujarat and for a while overpowered a great part of the south. The disintegration of the Muslim Empire, however, came in the fourteenth century following the reign of Mohammed bin Tughlaq and an attack by the Afghan chief Timur from Samarkand. One hundred fifty years lapsed before the Mughals from Persia gathered the Empire again.
3 The English first arrived in India as merchants. The East India Company was established by London merchants in 1612 at Surat, a city on the west coast then under

Fig. 6. Temporary habitation on the Oval Maidan, Bombay, c. 1900. Source: The Victoria and Albert Archives, Bombay.

Fig. 7. A galaxy of people during the Congress Party Centennial Celebrations on the Azad Maidan, Bombay, 1986. Source: The Afternoon 9 (January 1986).

Fig. 8 (top). The vast plain of the Sabarmati riverbed, Ahmedabad, 1985. Photograph by Anuradha Mathur.

Fig. 9 (bottom). Gathering on the Sabarmati riverbed on the eve of Mahatma Gandhi’s Salt March to Dandi, c. 1930. Source: The Gandhi Ashram Archives, Ahmedabad.
Mughal rule. This was followed by other trading posts at Madras (1639), Bombay (1661), and Calcutta (1690). Mughal strength was collapsing by the mid-eighteenth century in the face of Hindu rebellion, and a power struggle between Mughal provincial governors gave the British and the French, the only contenders then for dominion in India, an opportunity to forward their own political ambitions. The fight for dominion was decisively won at Plassey in 1757. The British, spreading inward from their trading posts, became successors to the Mughals.

Ivan Illich, _Gender_ (New York: Pantheon Books, 1982), 18, n.10. Even though the _maidan_ and the English commons cannot be merged with respect to their specific history and evolution, the idea of the commons as discussed by Illich is very similar to that of _maidan_.

Some of these usages were shared with me by Professor Momin at Bombay University.

Ahmad Ibn Tulun belonged to the Abbasid dynasty, the Caliphs of Baghdad from the mid-eighth to mid-thirteenth centuries A.D.


For most Islamic cities besides Isphahan, only fragmentary visual evidence exists of historic _maidans_. One has to rely on descriptions and observations of curious travelers or contemporary chroniclers to imagine and reconstruct the presence of these _maidans_.


Ibid., 64.

See Behrens-Abouseif, 20.

M.S. Commissariat, _A History of Gujarat_, vol. 2 (Bombay: Orient Longmans, 1957), 351.

Quoted in Commissariat, 351.

Quoted in Commissariat, 352. Both Albert de Mandchlo and M. de Thevenot describe the _maidans_ in Western terms that came close to defining the temporary function it accommodated during their brief visits there.

Sir Theodore C. Hope, _Architecture at Ahmedabad_ (London: John Murray, 1866), 42.

According to Nesar Alsayyad, the dimensions of _maidans_ were determined by the surrounding monuments to provide for their appropriate viewing. He, however, concludes that this remained the only _raison d'être_ for the _maidans_ beside being a thoroughfare, as a result of which they have little significance as open space in the Islamic city. See Nesar Alsayyad, "Space in an Islamic City: Some Urban Design Patterns," _Journal of Architectural and Planning Research_ 4, no. 2 (1987): 109.

This is most often expressed in descriptions, both old and recent, of the Maidan-i-Shah in Isphahan.


See David Leatherbarrow’s essay “Leveling the Land” in this collection for a discussion on depth.


Samuel T. Sheppard, _Bombay_ (Bombay: Times of India Press, 1932), 111. Sheppard presents this description from Milburn’s “Oriental Commerce in Bombay.”

Sir D.E. Wacha, _Shells from the Sand of Bombay—My Recollections and Reminiscences 1868-75_ (Bombay: K.T. Anthecasaria, 1920). An extensive account of the “air-eaters” and others on the _maidan_ is given by Wacha in his personal recollections of the early nineteenth century. The northern portion of the _maidan_ he notes, was chiefly used for military purposes and executions. The southern section, which was exposed to Back Bay, was visited at eventide by the inhabitants of the Fort, specially the Parsees, who occupied a special part of the _maidan_ for their exclusive groups and evening prayers. Other areas were dotted with squatting groups involved in sedentary pastimes.

Sheppard, _Bombay_.

In 1876, the various clubs amalgamated to form the Bombay Gymkhana Club. This was given a more permanent status as well as a structure on the _maidan_. The club was started with a concession from the government to erect upon the _maidan_ “a pavilion of such a construction as will admit easy and speedy removal” (Sheppard, 146). In 1879, the club got permission to enclose a plot of land on the condition that the land would be reclaimable on seven days’ notice. In 1905, the club was granted a ninety-nine-year lease on the land and a new pavilion was built that stands today in a cordoned portion on the southern portion of what is now known as the Azad Maidan.

Quoted in S.M. Edwards, _Rise of Bombay_ (Bombay: Times of India Press, 1902).


Ibid., 57. Also see Charles Allen, _Plain Tales from the Raj: Images of British India_ (London: Andre Deutsch, 1975), 169.


This is a misquote of Louis Kahn by Stem Nilsson in _The New Capitals of India, Pakistan and Bangladesh_ (Land: Studentlitteratur, 1973), 195. Kahn wrote of the “spirit of community,” not “spirit of commonness.” The word _commonness_, however, opens a new dimension in the understanding of anonymity that is crucial to _maidan_. John Stilgoe, in his essay “Town Common and Village Green in New England: 1620 to 1981,” in _Common Ground: Caring for Shared Land from Town Common to Urban Park_ , ed. Ronald Lee Fleming and Lauri A. Haldeman, (Cambridge, Mass.: Harvard Common Press and the Townscape Institute, 1981), writes: “‘common’ is an old word, rich in meanings and acquired over centuries. Yet it is not easily defined. The word denotes something that is readily accessible and openly shared, something that has a general, nonprivate nature. It can, however, also mean something ordinary, undistinguished, almost vulgar.”

The reader is referred to designers as diverse as Adriaan Geuze, George Hargreaves, Mario Schjetnan, Georges Descombes, Paolo Bardi, Peter Latz, and James Corner, where emptiness and restraint undergird the structuring of large landscapes for open-ended futures. See also an instance of this in my own work with Dilip da Cunha in James Corner, ed., _Governor’s Island_ (University of Pennsylvania, Graduate School of Fine Arts Document, 1996).
iv. Yatin Pandya: “Spatial Narratives in traditional Indian architecture”
SPATIAL NARRATIVES IN TRADITIONAL INDIAN ARCHITECTURE:
An interpretation for contemporary relevance

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SPATIAL NARRATIVES IN TRADITIONAL INDIAN ARCHITECTURE:
An interpretation for contemporary relevance

India! The land of antiquity. India’s heritage does not confine to historic accounts of the events and objects frozen in their own time and space, but rather as cultural and architectural traditions which have transcended the time and space to remain alive and appropriate even in the present. In India, history stays alive as living traditions. History and tradition both have their roots in the past, but history, for its in-adaptability to the changed time and space remains obsolete as fossilized remains of the bygone era. Tradition, on the other hand, consistently adapts and suitably transforms to the changed circumstances. Tradition therefore survives and remains timeless. It survived the past and promises to prevail in future as it rests on collective concurrence, shared values and deep rooted conditioning. The traditions - as living heritage are as much contemporary. Thus, in India we simultaneously live in three time zones. Legacies of past and aspirations for the future effectively combine with the realities of present.

Time, in an Indian psyche is a cyclic phenomenon. The faith in reincarnations, the cycle of birth-death and rebirth, the unending chain of construction-destruction and reconstruction, all reaffirm the belief in the recurrence of time.

Indian notion of “existence” trades also on such dualities. ‘Atman’ (atom) and ‘Brahman’ (universe) are fundamental basis of any existence. The schema of dual existence that simultaneously accepts part as a whole and whole as a part speaks of world within a world concept. Each entity is complete in itself at one plane and yet at the other a part of a larger system. A microcosm in cosmos. An aspect of counterpoints is also built into notions of existence. Bipolar existence where opposites reinforce each other. May it be purush and prakriti, light and darkness, solid and void, they are the mutually defining aspects. One shapes the other. That is why apparent extremes coexist in India. As counterpoints they become mutual references and integral part of self-balancing system ensuring the continuum and endurance.

Paradoxes prevail here as to an Indian psyche, notions rather than physical realities are more critical. “Space” is a notional phenomena which shapes and exists by the context.

Space making is a sum total of time and space combination. Space over time is not the same. Similarly time over different space is also not the same. Therefore, having invested in time the space changes. This constant juxtaposition of time over space is the essential premise of Indian Architecture. Movement is the key to its perception. Traditional Indian Architecture is the story of movement and pauses where "kinesthetics" of space is fundamental to its experience and perception.

Architecture is a celebration of life. Manifestation of an idea, it encodes messages and emotes feelings. Architecture communicates through spatial tools, may they be the space sequences and its organization; elements of space making and their scale and form, or the symbolism of surface articulation. It is this aspect of encoding and decoding that sets in an instantaneous dialogue between the user and the architectural product. The affectivity of the communication depends on the easy comprehension of the encoded messages and their appropriate compliances in builtform.
This communication takes place at three levels. Sensorial, experiential and associational. Sensorial perception refers primarily to physiological comforts arising out of physical conditions essentially in response to environmental control. This bodily perception is humanly universal. Also universal is the experiential aspect, however it deals critically with the mind and cradles emotions. The process is spontaneous and reactionary to the nuances of space configuration and its dictates. While, the associational is the locale specific perception requiring pre-conditioning, familiarity or the acquired information base. It creates spiritual bonds and succeeds through indepth understanding of cultural connotations. The complete communication is through wholesome balance of all the three.

Architectural spaces can potentially nourish emotionally and spiritually. A typical Hindu temple best illustrates this phenomenon. In a temple, the sequence of gopurams, series of ascending steps and platforms, rising volumes of domes and shikharas, increasing degree of enclosure and the transition from the semi-open, multi directional pavilions to the unidirectional dark sanctum enclosed by solid walls, all heighten the progression from the corporeal to the spiritual as one progresses from the gopuram to garbhagriha. This sense of transcendence from the worldly, from terrestrial to celestial, is further enhanced by the culmination of the horizontal planes of the platform into a vertical axis through tall pointed shikharas symbolically pointing towards the heavens. In this manner, the elements of a building, its scale, size, volume, degrees of enclosure, levels of illumination as well as motifs and decorations instill in the observer ethos appropriate to the place.

Transcending time and space, good architecture remains communicative and interactive all the while through its spatial qualities. These spaces possess the qualities to establish rapport with the on looker and condition its perception, independent of their cultural background. Timeless, ever pervading architecture rely on more fundamental attributes of space making ranging from approach and movement, scale and proportion, quality of light and shade or the relationship of the built with the unbuilt. Such architecture therefore needs to be understood and interpreted through perceptual and experiential qualities and not by the abstractions of the plan geometry or static compositions of the facade elevations. Dynamics of moving through the space and sensory perception of it is vital to good architecture.

It is for us to interpret spatial narratives built within the architectural space resolutions in traditional architecture. There are innumerable nuances of builtform by which traditional Indian Architecture manifests moods, communicates messages and remains relevant after these many centuries. Some of these are:
(a) non linear organization of spaces through shifting axis of movement which helps gradually unfold spaces and introduce element of surprise
(b) the layering of spaces by baffles and thresholds induces an interactive process by building up the curiosity and the implicit sense of discovery
(c) the provision of pause points and thresholds help one reorient and reaffirm bearings in space. It provides clues and informed choices for individual preferences and personal pursuits,
(d) element of time overlaid over space through increased path of movement and indirect approach, help condition mind and confront same space differently
(e) the visual proportioning of spaces and skilful arrangement of elements provide ever-changing frames of visual compositions through perspectival effects and their strategic visual alignments while in movement
(f) creative use of landscaping elements such as water and vegetation to enhance psychological and metaphoric overtones of the place and function. For example reflection of
mosque dome in ablution pond revealed only after bending down for ablution help remind and condition mind for further goal
(g) play of light through integration of unbuilt space become mutual counterpoints help define space hierarchies and territories in terms of personal and public realms. The conditions of outdoors inherently not remaining same changes consistently making the same space appear different and fresh all the time.

These aspect of time over space lend varied meaning to the same space configuration through its conditioning, rendering architecture ever fresh, interactive and timeless.

The stepwells of India illustrate the fact.

Stepwell - water well with steps is a typology of building unique to western India. Essentially a device to contain water, it exalts to become a socio-religious institution - owing largely to its architectural manifestations!

One such stepwell is located at Adalaj, formerly on a caravan route from Ahmedabad to Patan, then capital of Gujarat. Built in 1499 AD by Rudabai wife of Virsimha Vaghela, it is an interesting fusion of Hindu and Islamic architectural styles peculiar to the Sultanate regime in Gujarat which came to be identified as Indo-Saracenic architecture.

As a subterranean architecture it provides natural insulation through earth mass, in an otherwise hot dry - desert like climate. These cool platforms become resting spaces for the travellers. For women fetching water they become interactive platforms for socializing. This offered a chance to chat and relieve stresses and thereby transforming a mundane routine in to an enjoyable event. With various other associations such as ‘pataal lok’- journey to water world and fertility - womb of mother earth, these wells also assume the status of a shrine.

Spatially, however, the stepwell remains one of the most profound architectural statements. Despite its functional obsolescence of fetching water in today’s context, it continues to inspire visitors even after six centuries. Transcending time and space it has rendered timeless, essentially through its spatial attributes and experience of moving through the same. These experiences are shared trans-culturally by all at a basic human plane without any familiarity with the context or any knowledge of its history. This also makes it universal where communication between the subject and the onlooker is inherently decipherable. It is the journey, the process of moving through the space which in itself becomes the event.

The clues for movement, inherent to the space are revealed sequentially. This gradual unfolding of spaces creates a sense of curiosity within the onlooker and involves them in the process. A dialogue is established between the subject and the onlooker through mutual process of encoding and decoding of messages and thus making the entire process interactive as well as the discovery very personal and intuitive.

At Adalaj stepwell, the only visible clue above the ground is the pair of pilasters flanking a wide flight of steps. They become the inviting portal to climb the steps leading to a platform. The plinth platform then leads the descent through the descending steps and retaining side walls.

First flight of steps descends to a square platform with an octagonal frame, what would once have been a dome base. This becomes the first point of pause. Surrounded on three sides by
the inclined planes of rising steps the node leaves only one side open to approach. This is perpendicular to the axis of previous movement and thus involves a shift in visual as well as movement path. The new axis is marked by series of descending steps and intermittent platform located along the visual axis.

Although, a straight linear symmetrical organization of elements along the horizontal axis, the visual references continuously change due to inclined movement (through simultaneous displacement of horizontal and vertical axis) at every step. While the sight lines extend through its entire length the visual frame-composition of elements- constantly changes with the changing eye levels, vanishing points, perspectival alignments and the resultant visual composition all along its depth.

Each step reveals only the next while the subsequent flights of steps and water remain concealed by platforms from the cone of vision. Portals created by trabeated column and beam construction to shore the side walls retaining the earth are key spatial elements. The stone columns and beam provide the visual frames which enhance the sense of depth by providing an intermediate visual reference. With such changing visual frames the descent of five floors brings enface the actual water source. As termination of the journey, steps flank the water on all four sides making the well the notional centre and the focus which connects vertically up to sky and down to water well.

This journey is enriched by the spatial variations emerging through sense of enclosure and intensity of light. The total descent at Adalaj is of five floors. At the first level it begins with ground and sky as the basic references while as one descends further, the walls begin to surface changing the perception of the degree of enclosure. While the first few levels still have reference to sky through skywardly aperture, while the subsequent lower levels become more enclosed with only walls remaining in the cone of vision. The perception of enclosure is further reinforced by the decreasing intensity of light. The brightness of light subdues as one progresses further deeper into space making the space progressively vertical, cosier and confined. The perception of enclosure is attributed to its freshness offered by the variations of visual frames as well as the integration of light/nature where the sun is the constant variable as it changes position and intensity from morning to evening and from summer to winter. This makes the static object change with changing outdoor conditions through sun.

The variation of visual frames illuminates the varying strengths of sun’s light over time and season. It is to this dynamics we attribute the stepwell’s universality. The journey of descent conditions the mind to an increasing sense of penetration in ground. The experience of interospection is further worked upon by the layer of entablature, carvings and symbols. To a Hindu step wells have two associations. One of ablution - purificative cleansing in holy water, and the association of ‘patal lok’ one of the three domains of the world, apart from earth and sky.

These associations are conjured by the water related motifs recurring in the carved relief. For example at Adalaj the shoring wall edges have plaques depicting water urns. The freeze panel over the beam depicts churning of liquid and the base of the well at water level is carved the motifs of fish. As against the statuette of Ganesha, to mark the beginning of the journey, is located at the top rim level of the well.

These symbols and details function as constant reminders of one’s presence in the water world and creates the mood, ambiance and the mental frame such that finally reaching the
water is as good as an ablution - a holy dip into the water. Water reflecting the sky and sun/light brings the bi-unity of the extremes the water and fire as opposites notionally coexist as counter references.

Another association of the stepwell is of fertility - the womb of mother earth. These notions are conjured through plaques depicting goddesses and symbols of femininity. These are still worshipped and their blessings sought by newly weds during nuptial ceremonies. Thus through these notions and conditioning of mind, the well as a utilitarian object gets elevated to a shrine. Nourishing physically as well as spiritually it communicates beyond its functional and structural dictates. The sum total of the experience is sensorial as well as spiritual. It touches senses as well as mind. The meaning is in the journey itself and not necessarily the destination. The destination is not a means in itself, it is rather an excuse.

Yatin Pandya
v. Rem Koolhaas: “Junkspace”
REM KOOLHAAS

*Logan Airport: A World-Class Upgrade for the Twenty-first Century*

—Late-Twentieth Century Billboard

Rabbit is the new beef... Because we abhor the utilitarian, we have condemned ourselves to a lifelong immersion in the arbitrary... LAX: welcoming—possibly flesh-eating—orchids at the check-in counter... "Identity" is the new junk food for the dispossessed, globalization's fodder for the disenfranchised... If space-junk is the human debris that litters the universe, Junk-Space is the residue mankind leaves on the planet. The built (more about that later) product of modernization is not modern architecture but Junkspace. Junkspace is what remains after modernization has run its course, or, more precisely, what coagulates while modernization is in progress, its fallout. Modernization had a rational program: to share the blessings of science, universally. Junkspace is its apotheosis, or meltdown... Although its individual parts are the outcome of brilliant inventions, lucidly planned by human intelligence, boosted by infinite computation, their sum spells the end of Enlightenment, its resurrection as farce, a low-grade purgatory... Junkspace is the sum total of our current achievement; we have built more than did all previous generations put together, but somehow we do not register on the same scales. We do not leave pyramids. According to a new gospel of ugliness, there is already more Junkspace under construction in the twenty-first century than has survived from the twentieth... It was a mistake to invent modern architecture for the twentieth century. Architecture disappeared in the twentieth century; we have been reading a footnote under a microscope hoping it would turn into a novel; our concern for the masses has blinded us to People's Architecture. Junkspace seems an aberration, but it is the essence, the main thing... the product of an encounter between escalator and air-conditioning, conceived in an incubator of Sheetrock (all three missing from the history books). Continuity is the essence of Junkspace; it exploits any invention that enables expansion, deploys the infrastructure of seamlessness: escalator, air-conditioning, sprinkler, fire shutter, hot-air curtain... It is always interior, so extensive that you rarely perceive limits; it promotes disorientation by any means (mirror, polish, echo)... Junkspace is
sealed, held together not by structure but by skin, like a bubble. Gravity has remained constant, resisted by the same arsenal since the beginning of time; but air-conditioning—invisible medium, therefore unnoticed—has truly revolutionized architecture. Air-conditioning has launched the endless building. If architecture separates buildings, air-conditioning unites them. Air-conditioning has dictated mutant regimes of organization and coexistence that leave architecture behind. A single shopping center is now the work of generations of space planners, repairmen, and fixers, like in the Middle Ages; air-conditioning sustains our cathedrals. (All architects may unwittingly be working on the same building, so far separate, but with hidden receptors that will eventually make it cohere.) Because it costs money, is no longer free, conditioned space inevitably becomes conditional space; sooner or later all conditional space turns into Junkspace . . . When we think about space, we have only looked at its containers. As if space itself is invisible, all theory for the production of space is based on an obsessive preoccupation with its opposite: substance and objects, i.e., architecture. Architects could never explain space; Junkspace is our punishment for their mystifications. O.K., let's talk about space then. The beauty of airports, especially after each upgrade. The luster of renovations. The subtlety of the shopping center. Let's explore public space, discover casinos, spend time in theme parks . . . Junkspace is the body double of space, a territory of impaired vision, limited expectation, reduced earnestness. Junkspace is a Bermuda Triangle of concepts, an abandoned petri dish: it cancels distinctions, undermines resolve, confuses intention with realization. It replaces hierarchy with accumulation, composition with addition. More and more, more is more. Junkspace is overripe and undernourishing at the same time, a colossal security blanket that covers the earth in a stranglehold of seduction . . . Junkspace is like being condemned to a perpetual Jacuzzi with millions of your best friends . . . A fuzzy empire of blur, it fuses high and low, public and private, straight and bent, bloated and starved to offer a seamless patchwork of the permanently disjointed. Seemingly an apotheosis, spatially grandiose, the effect of its richness is a terminal hollowness, a vicious parody of ambition that systematically erodes the credibility of building, possibly forever . . . Space was created by piling matter on top of matter, cemented to form a solid new whole. Junkspace is additive, layered, and lightweight, not articulated in different parts but subdivided, quartered the way a carcass is torn apart—individual chunks severed from a universal condition. There are no walls, only partitions, shimmering membranes frequently covered in mirror or gold. Structure groans invisibly underneath decoration, or worse, has become ornamental; small, shiny, space frames support nominal loads, or huge beams deliver cyclopic burdens to unsuspecting destinations . . . The arch, once the workhorse of structures, has become the depleted emblem of “community,” welcoming an infinity of virtual populations to nonexistent theres. Where it is absent, it is simply applied—mostly in stucco—as ornamental afterthought on hurriedly erected superblocks. Junkspace’s iconography is 13 percent Roman, 8 percent Bauhaus and 7 percent Disney (neck and neck), 3 percent Art Nouveau, followed
closely by Mayan... Like a substance that could have condensed in any other
form, Junkspace is a domain of feigned, simulated order, a kingdom of morphing. Its specific configuration is as fortuitous as the geometry of a snowflake. Patterns imply repetition or ultimately decipherable rules; Junkspace is beyond measure, beyond code... Because it cannot be grasped, Junkspace cannot be remembered. It is flamboyant yet unmemorable, like a screen saver; its refusal to freeze ensures instant amnesia. Junkspace does not pretend to create perfection, only interest. Its geometries are unimaginable, only makable. Although strictly nonarchitectural, it tends to the vaulted, to the Dome. Some sections seem to be devoted to utter inertness, others in perpetual rhetorical turmoil: the deadest resides next to the most hysterical. Themes cast a pall of arrested development over interiors as big as the Pantheon, spawning stillbirths in every corner. The aesthetic is Byzantine, gorgeous, and dark, splintered into thousands of shards, all visible at the same time: a quasi-panoptical universe in which all contents rearrange themselves in split seconds around the dizzy eye of the beholder. Murals used to show idols; Junkspace's modules are dimensioned to carry brands; myths can be shared, brands husband aura at the mercy of focus groups. Brands in Junkspace perform the same role as black holes in the universe: they are essences through which meaning disappears... The shiniest surfaces in the history of mankind reflect humanity at its most casual. The more we inhabit the palatial, the more we seem to dress down. A stringent dress code—last spasm of etiquette?—governs access to Junkspace: shorts, sneakers, sandals, shell suit, fleece, jeans, parka, backpack. As if the People suddenly accessed the private quarters of a dictator, Junkspace is best enjoyed in a state of postrevolutionary gawking. Polarities have merged—there is nothing left between desolation and frenzy. Neon signifies both the old and the new; interiors refer to the Stone and Space Age at the same time. Like the deactivated virus in an inoculation, Modern architecture remains essential, but only in its most sterile manifestation, High Tech (it seemed so dead only a decade ago!). It exposes what previous generations kept under wraps: structures emerge like springs from a mattress; exit stairs dangle in a didactic trapeze; probes thrust into space to deliver laboriously what is in fact omnipresent, free air; acres of glass hang from spidery cables, tautly stretched skins enclose flaccid nonevents. Transparency only reveals everything in which you cannot partake. At the stroke of midnight it all may revert to Taiwanese Gothic; in three years it may segue into Nigerian Sixties, Norwegian Chalet, or default Christian. Earthlings now live in a kindergarten grotesque... Junkspace thrives on design, but design dies in Junkspace. There is no form, only proliferation... Regurgitation is the new creativity; instead of creation, we honor, cherish, and embrace manipulation... Superstrings of graphics, transplanted emblems of franchise and sparkling infrastructures of light, LEDs, and video describe an authorless world beyond anyone's claim, always unique, utterly unpredictable, yet intensely familiar. Junkspace is hot (or suddenly arctic); fluorescent walls, folded like melting stained glass, generate additional heat to raise the temperature of
Junkspace to levels at which you could cultivate orchids. Pretending histories left and right, its contents are dynamic yet stagnant, recycled or multiplied as in cloning: forms search for function like hermit crabs looking for a vacant shell... Junkspace sheds architectures like a reptile sheds skins, is reborn every Monday morning. In previous building, materiality was based on a final state that could only be modified at the expense of partial destruction. At the exact moment that our culture has abandoned repetition and regularity as repressive, building materials have become more and more modular, unitary, and standardized; substance now comes predigitized... As the module becomes smaller and smaller, its status become that of a crypto-pixel. With enormous difficulty—budget, argument, negotiation, deformation—irregularity and uniqueness are constructed from identical elements. Instead of trying to wrest order from chaos, the picturesque is now wrested from the homogenized, the singular liberated from the standardized... Architects thought of Junkspace first and named it Megastructure, the final solution to transcend their huge impasse. Like multiple Babels, huge superstructures would last through eternity, teeming with impermanent subsystems that would mutate over time, beyond their control. In Junkspace, the tables are turned: it is subsystem only, without superstructure, orphaned particles in search of a framework or pattern. All materialization is provisional: cutting, bending, tearing, coating: construction has acquired a new softness, like tailoring... The joint is no longer a problem, an intellectual issue: transitional moments are defined by stapling and taping, wrinkle brown bands barely maintain the illusion of an unbroken surface; verbs unknown and unthinkable in architectural history—clamp, stick, fold, dump, glue, shoot, double, fuse—have become indispensable. Each element performs its task in negotiated isolation. Where as detailing once suggested the coming together, possibly forever, of disparate materials, it is now a transient coupling, waiting to be undone, unscrewed, a temporary embrace with a high probability of separation; no longer the orchestrated encounter of difference, but the abrupt end of a system, a stalemate. Only the blind, reading its fault lines with their fingertips, will ever understand Junkspace’s histories... While whole millennia worked in favor of permanence, axialities, relationships, and proportion, the program of Junkspace is escalation. Instead of development, it offers entropy. Because it is endless, it always leaks somewhere in Junkspace; in the worst case, monumental ashtrays catch intermittent drops in a gray broth... When did time stop moving forward, begin to spool in every direction, like a tape spinning out of control? Since the introduction of Real Time™? Change has been divorced from the idea of improvement. There is no progress; like a crab on LSD, culture staggers endlessly sideways... The average contemporary lunch box is a microcosm of Junkspace: a fervent semantics of health—slabs of eggplant, topped by thick layers of goat cheese—canceled by a colossal cookie at the bottom... Junkspace is draining and is drained in return. Everywhere in Junkspace there are seating arrangements, ranges of modular chairs, even couches, as if the experience Junkspace offers its consumers is significantly more exhausting than any previous
spatial sensation; in its most abandoned stretches, you find buffets: utilitarian tables draped in white or black sheets, perfunctory assemblies of caffeine and calories—cottage cheese, muffins, unripe grapes—notional representations of plenty, without horn and without plenty. Each Junkspace is connected, sooner or later, to bodily functions: wedged between stainless-steel partitions sit rows of groaning Romans, denim togas bunched around their huge sneakers... Because it is so intensely consumed, Junkspace is fanatically maintained, the night shift undoing the damage of the day shift in an endless Sisyphean replay. As you recover from Junkspace, Junkspace recovers from you: between 2 and 5 A.M., yet another population, this one heartlessly casual and appreciably darker, is mopping, hovering, sweeping, toweling, resupplying... Junkspace does not inspire loyalty in its cleaners... Dedicated to instant gratification, Junkspace accommodates seeds of future perfection; a language of apology is woven through its texture of canned euphoria; "pardon our appearance" signs or miniature yellow "sorry" billboards mark ongoing patches of wetness, announce momentary discomfort in return for imminent shine, the allure of improvement. Somewhere, workers sink on their knees to repair faded sections, as if in a prayer, or half-disappear in ceiling voids to negotiate elusive malfunctions, as if in confession. All surfaces are archaeological, superpositions of different "periods" (what do you call the moment a particular type of wall-to-wall carpet was current?)—as you note when they're torn... Traditionally, typology implies demarcation, the definition of a singular model that excludes other arrangements. Junkspace represents a reverse typology of cumulative, approximative identity, less about kind than about quantity. But formlessness is still form, the formless also a typology... Take the dump, where successive trucks discharge their loads to form a heap, whole in spite of the randomness of its contents and its fundamental shapelessness, or that of the tent-envelope that assumes different shapes to accommodate variable interior volumes. Or the vague crotches of the new generation. Junkspace can either be absolutely chaotic or frighteningly aseptic—like a best-seller—overdetermined and indeterminate at the same time. There is something strange about ballrooms, for instance: huge wastelands kept column-free for ultimate flexibility. Because you've never been invited to that kind of event, you have never seen them in use; you've only seen them being prepared with chilling precision: a relentless grid of circular tables, extending toward a distant horizon, their diameters preempting communication; a dais big enough for the politburo of a totalitarian state, wings announcing as yet unimagined surprises—acres of organization to support future drunkenness, disarray, and disorder. Or car shows... Junkspace is often described as a space of flows, but that is a misnomer; flows depend on disciplined movement, bodies that cohere. Junkspace is a web without a spider; although it is an architecture of the masses, each trajectory is strictly unique. Its anarchy is one of the last tangible ways in which we experience freedom. It is a space of collision, a container of atoms, busy, not dense... There is a special way of moving in Junkspace, at the same time aimless and purposeful. It is an acquired culture.
Junkspace features the tyranny of the oblivious: sometimes an entire Junkspace comes unstuck through the nonconformity of one of its members; a single citizen of another culture—a refugee, a mother—can destabilize an entire Junkspace, hold it to a rustic's ransom, leaving an invisible swath of obstruction in his/her wake, a deregulation eventually communicated to its furthest extremities. Where movement becomes synchronized, it curdles: on escalators, near exits, parking machines, automated tellers. Sometimes, under duress, individuals are channeled in a flow, pushed through a single door or forced to negotiate the gap between two temporary obstacles (an invalid's beeping chariot and a Christmas tree): the manifest ill will such narrowing provokes mocks the notion of flows. Flows in Junkspace lead to disaster: department stores at the beginning of sales; the stampedes triggered by warring compartments of soccer fans; dead bodies piling up in front of the locked emergency doors of a disco—evidence of the awkward fit between the portals of Junkspace and the narrow calibrations of the old world. The young instinctively avoid the Dante-esque manipulations/containers to which Junkspace has condemned their elders in perpetuity. Within the meta-playground of Junkspace exist smaller playgrounds, Junkspace for children (usually in the least desirable square footage): sections of sudden miniaturization—often underneath staircases, always near dead ends—and assemblies of underdimensioned plastic structures—slides, seesaws, swings—shunned by their intended audience are turned into a Junkniche for the old, the lost, the forgotten, the insane... the last hiccup of humanism... Traffic is Junkspace, from airspace to the subway; the entire highway system is Junkspace, a vast potential utopia clogged by its users, as you notice when they've finally disappeared on vacation... Like radioactive waste, Junkspace has an insidious half-life. Aging in Junkspace is nonexistent or catastrophic; sometimes an entire Junkspace—a department store, a nightclub, a bachelor pad—turns into a slum overnight without warning: wattage diminishes imperceptibly, letters drop out of signs, air-conditioning units start dripping, cracks appear as if from otherwise unregistered earthquakes; sections rot, are no longer viable, but remain joined to the flesh of the main body via gangrenous passages. Judging the built presumed a static condition; now each architecture embodies opposite conditions simultaneously: old and new, permanent and temporary, flourishing and at risk... Sections undergo an Alzheimer's-like deterioration as others are upgraded. Because Junkspace is endless, it is never closed... Renovation and restoration were procedures that took place in your absence; now you're a witness, a reluctant participant... Seeing Junkspace in conversion is like inspecting an unmade bed, someone else's. Say an airport needs more space. In the past, new terminals were added, each more or less characteristic of its own age, leaving the old ones as a readable record, evidence of progress. Since passengers have definitively demonstrated their infinite malleability, the idea of rebuilding on the spot has gained currency. Travelators are thrown into reverse, signs taped, potted palms (or very large corpses) covered in body bags. Screens of taped Sheetrock segregate two populations: one wet, one dry, one
hard, one flabby, one cold, one overheated. Half the population produces new space; the more affluent half consumes old space. To accommodate a nether world of manual labor, the concourse suddenly turns into Casbah: improvised locker rooms, coffee breaks, smoking, even real campfires . . . The ceiling is a crumpled plate like the Alps; grids of unstable tiles alternate with monogrammed sheets of black plastic, improbably punctured by grids of crystal chandeliers . . . Metal ducts are replaced by breathing textiles. Gaping joints reveal vast ceiling voids (former canyons of asbestos?), beams, ducting, rope, cable, insulation, fire-proofing, string; tangled arrangements suddenly exposed to daylight. Impure, tortured, and complex, they exist only because they were never consciously plotted. The floor is a patchwork: different textures—concrete, hairy, heavy, shiny, plastic, metallic, muddy—alternate randomly, as if dedicated to different species . . . The ground is no more. There are too many raw needs to be realized on only one plane. The absolute horizontal has been abandoned. Transparency has disappeared, to be replaced by a dense crust of provisional occupation: kiosks, carts, strollers, palms, fountains, bars, sofas, trolleys . . . Corridors no longer simply link A to B, but have become “destinations.” Their tenant life tends to be short: the most stagnant windows, the most perfunctory dresses, the most implausible flowers. All perspective is gone, as in a rainforest (itself disappearing, they keep saying . . . ). The formerly straight is coiled into evermore complex configurations. Only a perverse modernist choreography can explain the twists and turns, the ascents and descents, the sudden reversals that comprise the typical path from check-in (misleading name) to the apron of the average contemporary airport. Because we never reconstruct or question the absurdity of these enforced dérives, we meekly submit to grotesque journeys past perfume, asylum-seekers, building site, underwear, oysters, pornography, cell phone—incredible adventures for the brain, the eye, the nose, the tongue, the womb, the testicles . . . There was once a polemic about the right angle and the straight line; now the ninetieth degree has become one among many. In fact, remnants of former geometries create ever new havoc, offering forlorn nodes of resistance that create unstable eddies in newly opportunistic flows . . . Who would dare claim responsibility for this sequence? The idea that a profession once dictated, or at least presumed to predict, people’s movements now seems laughable, or worse: unthinkable. Instead of design, there is calculation: the more erratic the path, eccentric the loops, hidden the blueprint, efficient the exposure, the more inevitable the transaction. In this war, graphic designers are the great turncoats: Where once signage promised to deliver you to where you wanted to be, it now obfuscates and entangles you in a thicket of cuteness that forces you past unwanted detours, turns you back when you’re lost. Postmodernism adds a crumple-zone of viral poché that fractures and multiplies the endless frontline of display, a peristaltic shrink-wrap crucial to all commercial exchange. Trajectories are launched as ramp, turn horizontal without any warning, intersect, fold down, suddenly emerge on a vertiginous balcony above a large void. Fascism minus dictator. From the sudden dead end where you were
dropped by a monumental, granite staircase, an escalator takes you to an invisible destination, facing a provisional vista made of plaster, inspired by forgettable sources. (There is no datum level; you always inhabit a sandwich. “Space” is scooped out of Junkspace as from a soggy block of ice cream that has languished too long in the freezer: cylindrical, cone-shaped, more or less spherical, whatever . . . ) Toilet groups mutate into Disney Stores then morph to become meditation centers: Successive transformations mock the word “plan.” The plan is a radar screen where individual pulses survive for unpredictable periods of time in a Bacchanalian free-for-all . . . In this standoff between the redundant and the inevitable, a plan would actually make matters worse, would drive you to instant despair. Only the diagram gives a bearable version. There is zero loyalty—and zero tolerance—toward configuration, no “original” condition; architecture has turned into a time-lapse sequence to reveal a “permanent evolution.” ... The only certainty is conversion—continuous—followed, in rare cases, by “restoration,” the process that claims ever new sections of history as extensions of Junkspace. History corrupts, absolute history corrupts absolutely. Color and matter are eliminated from these bloodless grafts: the bland has become the only meeting ground for the old and the new . . Can the bland be amplified? The featureless be exaggerated? Through height? Depth? Length? Variation? Repetition? Sometimes not overload but its opposite, an absolute absence of detail, generates Junkspace. A voided condition of frightening sparseness, shocking proof that so much can be organized by so little. Laughable emptiness infuses the respectful distance or tentative embrace that starchitects maintain in the presence of the past, authentic or not. Invariably, the primordial decision is to leave the original intact; the formerly residual is declared the new essence, the focus of the intervention. As a first step, the substance to be preserved is wrapped in a thick pack of commerce and catering—like a reluctant skier pushed downhill by responsible minders. To show respect, symmetries are maintained and helplessly exaggerated; ancient building techniques are resurrected and honed to irrelevant shine, quarries reopened to excavate the “same” stone, indiscreet donor names chiseled prominently in the meekest of typefaces; the courtyard covered by a masterful, structural “filigree”—emphatically uncompetitive—so that continuity may be established with the “rest” of Junkspace (abandoned galleries, display slums, Jurassic concepts . . . ). Conditioning is applied; filtered daylight reveals vast, antiseptic expanses of monumental reticence and makes them come alive, vibrant as a computer rendering . . . The curse of public space: latent fascism safely smothered in signage, stools, sympathy . . . Junkspace is postexistential; it makes you uncertain where you are, obscures where you go, undoes where you were. Who do you think you are? Who do you want to be? (Note to architects: You thought that you could ignore Junkspace, visit it surreptitiously, treat it with condescending contempt or enjoy it vicariously . . . because you could not understand it, you’ve thrown away the keys . . . But now your own architecture is infected, has become equally smooth, all-inclusive, continuous, warped, busy, atrium-ridden . . . ) JunkSignature™ is the new architec-
ture: the former megalomania of a profession contracted to manageable size, Junkspace minus its saving vulgarity. Anything stretched—limousines, body parts, planes—turns into Junkspace, its original concept abused. Restore, rearrange, reassemble, revamp, renovate, revise, recover, redesign, return—the Parthenon marbles—redo, respect, rent: verbs that start with re-produce Junkspace... Junkspace will be our tomb. Half of mankind pollutes to produce, the other pollutes to consume. The combined pollution of all Third World cars, motorbikes, trucks, buses, sweatshops pales into insignificance compared to the heat generated by Junkspace. Junkspace is political: It depends on the central removal of the critical faculty in the name of comfort and pleasure. Politics has become manifesto by Photoshop, seamless blueprints of the mutually exclusive, arbitrated by opaque NGOs. Comfort is the new Justice. Entire miniature states now adopt Junkspace as political program, establish regimes of engineered disorientation, instigate a politics of systematic disarray. Not exactly “anything goes”; in fact, the secret of Junkspace is that it is both promiscuous and repressive: as the formless proliferates, the formal withers, and with it all rules, regulations, recourse... Babel has been misunderstood. Language is not the problem, just the new frontier of Junkspace. Mankind, torn by eternal dilemmas, the impasse of seemingly endless debates, has launched a new language that straddles unbridgeable divides like a fragile designer’s footbridge... coined a proactive wave of new oxymorons to suspend former incompatibility: life/style, reality/TV, world/music, museum/store, food/court, health/care, waiting/lounge. Naming has replaced class struggle, sonorous amalgamations of status, high-concept, and history. Through acronym, unusual importation, suppressing letters, or fabrication of nonexistent plurals, they aim to shed meaning in return for a spacious new roominess... Junkspace knows all your emotions, all your desires. It is the interior of Big Brother’s belly. It preempts people’s sensations. It comes with a sound track, smell, captions; it blatantly proclaims how it wants to be read: rich, stunning, cool, huge, abstract, “minimal,” historical. It sponsors a collective of brooding consumers in surly anticipation of their next spend, a mass of refractory periods caught in a Thousand Year Reign of Razzmatazz, a paroxysm of prosperity. The subject is stripped of privacy in return for access to a credit nirvana. You are complicit in the tracing of the fingerprints each of your transactions leaves; they know everything about you, except who you are. Emissaries of Junkspace pursue you in the formerly impervious privacy of the bedroom: the minibar, private fax machines, pay-TV offering compromised pornography, fresh plastic veils wrapping toilets seats, courtesy condoms: miniature profit centers coexist with your bedside bible... Junkspace pretends to unite, but it actually splinters. It creates communities not out of shared interest or free association, but out of identical statistics and unavoidable demographics, an opportunistic weave of vested interests. Each man, woman, and child is individually targeted, tracked, split off from the rest... Fragments come together at “security” only, where a grid of video screens disappointingly reassembles individual frames into a banalized, utilitarian cubism...
that reveals Junkspace's overall coherence to the dispassionate glare of barely trained guards: video-ethnography in its brute form. Just as Junkspace is unstable, its actual ownership is forever being passed on in parallel disloyalty. Junkspace happens spontaneously through natural corporate exuberance—the unfettered play of the market—or is generated through the combined actions of temporary "czars" with long records of three-dimensional philanthropy, bureaucrats (often former leftists) that optimistically sell off vast tracts of waterfront, former hippodromes, military bases and abandoned airfields to developers or real-estate moguls who can accommodate any deficit in futuristic balances, or through Default Preservation™ (the maintenance of historical complexes that nobody wants but that the Zeitgeist has declared sacrosanct). As its scale mushrooms—rivals and even exceeds that of the Public—its economy becomes more inscrutable. Its financing is a deliberate haze, clouding opaque deals, dubious tax breaks, unusual incentives, exemptions, tenuous legalities, transferred air rights, joined properties, special zoning districts, public-private complicities. Funded by bonds, lottery, subsidy, charity, grant: an erratic flow of yen, Euros, and dollars creates financial envelopes that are as fragile as their contents. Because of a structural shortfall, a fundamental deficit, a contingent bankruptcy, each square inch becomes a grasping, needy surface dependent on covert or overt support, discount, compensation and fund-raising. For culture, "engraved donor bricks"; for everything else: cash, rentals, leases, franchises, the underpinning of brands. Junkspace expands with the economy but its footprint cannot contract—when it is no longer needed, it thins. Because of its tenuous viability, Junkspace has to swallow more and more program to survive; soon, we will be able to do anything anywhere. We will have conquered place. At the end of Junkspace, the Universal? Through Junkspace, old aura is transfused with new luster to spawn sudden commercial viability: Barcelona amalgamated with the Olympics, Bilbao with the Guggenheim, Forty-second Street with Disney. God is dead, the author is dead, history is dead, only the architect is left standing ... an insulting evolutionary joke ... A shortage of masters has not stopped a proliferation of masterpieces. "Masterpiece" has become a definitive sanction, a semantic space that saves the object from criticism, leaves its qualities unproven, its performance untested, its motives unquestioned. Masterpiece is no longer an inexplicable fluke, a roll of the dice, but a consistent typology: its mission to intimidate, most of its exterior surfaces bent, huge percentages of its square footage dysfunctional, its centrifugal components barely held together by the pull of the atrium, dreading the imminent arrival of forensic accounting ... The more indeterminate the city, the more specific its Junkspace; all of Junkspace's prototypes are urban—the Roman Forum, the Metropolis; it is only their reverse synergy that makes them suburban, simultaneously swollen and shrunk. Junkspace reduces what is urban to urbanity ... Instead of public life, Public Space™: what remains of the city once the unpredictable has been removed ... Space for "honoring," "sharing," "caring," "grieving," and "healing" ... civility imposed by an overdose of serif ... In the third
Millennium, Junkspace will assume responsibility for pleasure and religion, exposure and intimacy, public life and privacy. Inevitably, the death of God (and the author) has spawned orphaned space; Junkspace is authorless, yet surprisingly authoritarian... At the moment of its greatest emancipation, humankind is subjected to the most dictatorial scripts: from the pushy oration of the waiter to the answering gulags on the other end of the telephone, the safety instructions on the airplane, more and more insistent perfumes, mankind is browbeaten into submitting to the most harshly engineered plotline... The chosen theater of megalomania—the dictatorial—is no longer politics, but entertainment. Through Junkspace, entertainment organizes hermetic regimes of ultimate exclusion and concentration: concentration gambling, concentration golf, concentration convention, concentration movie, concentration culture, concentration holiday. Entertainment is like watching a once-hot planet cool off; its major inventions are ancient: the moving image, the roller coaster, recorded sound, cartoons, clowns, dinosaurs, news, war. Except for celebrities—of which there is a dramatic shortage—we have added nothing, just reconfigured. Corpotainment is a galaxy in contraction, forced to go through the motions by ruthless Copernican laws. The secret of corporate aesthetics was the power of elimination, the celebration of the efficient, the eradication of excess: abstraction as camouflage, the search for a Corporate Sublime. On popular demand, organized beauty has become warm, humanist, inclusivist, arbitrary, poetic, and unthreatening: water is pressurized through very small holes, then forced into rigorous hoops; straight palms are bent into grotesque poses, air is burdened with added oxygen—as if only forcing malleable substances into the most drastic contortions maintains control, satisfies the drive to get rid of surprise. Not canned laughter, but canned euphoria... Color has disappeared to dampen the resulting cacophony, and is used only as cue: relax, enjoy, be well, we're united in sedation... Why can't we tolerate stronger sensations? Dissonance? Awkwardness? Genius? Anarchy?... Junkspace heals, or at least that is the assumption of many hospitals. We thought the hospital was unique—a universe that identified by its smell—but now that we are used to universal conditioning we recognize it was merely a prototype; all Junkspace is defined by its smell. Often heroic in size, planned with the last adrenaline of modernism's grand inspiration, we have made them (too) human; life or death decisions are taken in spaces that are relentlessly friendly, littered with fading bouquets, empty coffee cups, and yesterday's papers. You used to face death in appropriate cells; now your nearest are huddled together in atriums. A bold datum line is established on every vertical surface, dividing the infirmary in two: above an endless humanist scroll of “color,” loved ones, children's sunsets, signage, and art... below a utilitarian zone for defacement and disinfectant, anticipated collision, scratch, spill, and smudge... Junkspace is space as vacation; there once was a relationship between leisure and work, a biblical dictate that divided our weeks, organized public life. Now we work harder, marooned in a never-ending casual Friday... The office is the next frontier of Junkspace. Since you can work at
home, the office aspires to the domestic; because you still need a life, it simulates the city. Junkspace features the office as the urban home, a meeting-boudoir: desks become sculptures, the work-floor is lit by intimate downlights. Monumental partitions, kiosks, mini-Starbucks on interior plazas: a Post-it universe: “team memory,” “information persistence”; futile hedges against the universal forgetting of the unmemorable, the oxymoron as mission statement. Witness corporate agitprop: the CEO’s suite becomes “leadership collective,” wired to all the world’s other Junkspace, real or imagined. Espace becomes E-space. The twenty-first century will bring “intelligent” Junkspace: on a big digital “dashboard”: sales, CNNNYSENASDAQC-SPAN, anything that goes up or down, from good to bad, presented in real time like the automotive-theory course that complements driving lessons . . . Globalization turns language into Junkspace. We are stuck in a speech-doldrums. The ubiquity of English is Pyrrhic: now that we all speak it, nobody remembers its use. The collective bastardization of English is our most impressive achievement; we have broken its back with ignorance, accent, slang, jargon, tourism, outsourcing, and multitasking . . . we can make it say anything we want, like a speech dummy . . . Through the retrofitting of language, there are too few plausible words left; our most creative hypotheses will never be formulated, discoveries will remain unmade, concepts unlaunched, philosophies muffled, nuances miscarried . . . We inhabit sumptuous Potemkin suburbs of weasel terminologies. Aberrant linguistic ecologies sustain virtual subjects in their claim to legitimacy, help them survive . . . Language is no longer used to explore, define, express, or to confront but to fudge, blur, obfuscate, apologize, and comfort . . . it stakes claims, assigns victimhood, preempts debate, admits guilt, fosters consensus. Entire organizations and/or professions impose a descent into the linguistic equivalent of hell: condemned to a word-limbo, inmates wrestle with words in ever-descending spirals of pleading, lying, bargaining, flattening . . . a Satanic orchestration of the meaningless . . . Intended for the interior, Junkspace can easily engulf a whole city. First, it escapes from its containers—semantic orchids that needed hothouse protection emerging with surprising robustness—then the outdoors itself is converted: the street is paved more luxuriously, shelters proliferate carrying increasingly dictatorial messages, traffic is calmed, crime eliminated. Then Junkspace spreads like a forest fire in L.A. . . . The global progress of Junkspace represents a final Manifest Destiny: the World as public space . . . All of the resurrected emblems and recycled ambers of the formerly public need new pastures. A new vegetal is corralled for its thematic efficiency. The outing of Junkspace has triggered the professionalization of denaturing, a benign ecofascism that positions a rare surviving Siberian tiger in a forest of slot machines, near Armani, amid a twisted arboreal Baroque . . . Outside, between the casinos, fountains project entire Stalinist buildings of liquid, ejaculated in a split second, hovering momentarily, then withdrawing with an amnesiac competency . . . Air, water, wood: All are enhanced to produce Hyperecology™, a parallel Walden, a new rainforest. Landscape has become Junkspace, foliage as spoilage: Trees are
tortured, lawns cover human manipulations like thick pelts, or even toupees, sprinklers water according to mathematical timetables... Seemingly at the opposite end of Junkspace, the golf course is, in fact, its conceptual double: empty, serene, free of commercial debris. The relative evacuation of the golf course is achieved by the further charging of Junkspace. The methods of their design and realization are similar: erasure, tabula rasa, reconfiguration. Junkspace turns into biojunk; ecology turns into ecospace. Ecology and economy have bonded in Junkspace as ecolomy. The economy has become Faustian; hyperdevelopment depends on artificial underdevelopment; a huge global bureaucracy is in the making to settle, in a colossal yin/yang, the balance between Junkspace and golf, between the scraped and the ’scaped, trading the right to despoil for the obligation to create steroid rainforests in Costa Rica. Oxygen banks, Fort Knoxes of chlorophyll, eco-reserves as a blank check for further pollution. Junkspace is rewriting the apocalypse; we may die of oxygen poisoning... In the past, the complexities of Junkspace were compensated for by the stark rawness of its adjunct infrastructures: parking garages, filling stations, distribution centers routinely displaying a monumental purity that was the original aim of modernism. Now, massive injections of lyricism have enabled an infrastructure—the one domain previously immune to design, taste, or the marketplace—to join the world of Junkspace, and for Junkspace to extend its manifestations under the sky. Railway stations unfold like iron butterflies, airports glisten like cyclopic dew-drops, bridges span often negligible banks like grotesquely enlarged versions of the harp. To each rivulet its own Calatrava. (Sometimes when there is a strong wind, this new generation of instruments shakes as if being played by a giant, or maybe a God, and mankind shudders...) Junkspace can be airborne, bring malaria to Sussex; 300 anopheline mosquitoes arrive each day at GDG and GTW with ability, theoretically, to infect eight to twenty locals in a three-mile radius, a hazard exacerbated by the average passenger’s reluctance, in a misplaced gasp of quasi-autonomy, to be disinfected once he or she has buckled up for the return journey from the dead end of the tourist destination. Airports, provisional accommodation for those going elsewhere, inhabited by assemblies united only by the imminence of their dissolution, have turned into consumption gulags, democratically distributed across the globe to give every citizen an equal chance of admission... MXP looks as if all of the leftovers of East Germany’s reconstruction—whatever was needed to undo the deprivations of Communism—have been hurriedly bulldozed together according to a vaguely rectangular blueprint to form a botched sequence of deformed, inadequate spaces (apparently willed into being by the current rulers of Europe, who extort limitless Euros from the community’s regional funds, causing endless delays for its duped taxpayers too busy on cell phones to notice). DFW is composed of three elements only, repeated ad infinitum, nothing else: one kind of beam, one kind of brick, one kind of tile, all coated in the same color—is it teal? Rust? Tobacco? With symmetries scaled beyond any possibility of recognition, the endless curve of its terminals forces its
users to enact relativity theory in their quest for the gate. Its dropoff is the seemingly harmless beginning of a journey to the heart of unmitigated nothingness, beyond the animation provided by Pizza Hut, Dairy Queen... Valley cultures were thought to be the most resistant to Junkspace: at GVZ you can still see a universe of rules, order, hierarchy, neatness, coordination, poised moments before its implosion, but at ZHR huge “timepieces” hover in front of interior waterfalls as an essay in Regionaljunk. Duty-free is Junkspace; Junkspace is duty-free space. Where culture was thinnest, will it be the first to run out? Is emptiness local? Do wide open spaces demand wide open Junkspace? Sunbelt: huge populations where there was nothing; PHX: warpaint on every terminal, dead Indian outlines on every surface—carpet, wallpaper, napkins—like frogs flattened by car tires. Public Art distributed across LAX: the fish that have disappeared from our rivers return as public art in the concourse; only what is dead can be resurrected. Memory itself may have turned into Junkspace; only those murdered will be remembered. Deprivation can be caused by overdose or shortage; both conditions happen in Junkspace (often at the same time). Minimum is the ultimate ornament, a self-righteous crime, the contemporary Baroque. It does not signify beauty, but guilt. Its demonstrative earnestness drives whole civilizations into the welcoming arms of camp and kitsch. Ostensibly a relief from constant sensorial onslaught, minimum is maximum in drag, a stealth laundering of luxury: the stricter the lines, the more irresistible the seductions. Its role is not to approximate the sublime, but to minimize the shame of consumption, drain embarrassment, to lower what is higher. The minimum now exists in a state of parasitic codependency with the overdose: to have and not to have, craving and owning, finally collapsed in a single signifier... Museums are sanctimonious Junkspace; there is no sturdier aura than holiness. To accommodate the converts they have attracted by default, museums massively turn “bad” space into “good” space; the more untreated the oak, the larger the profit center. Monasteries inflated to the scale of department stores: expansion is the Third Millennium’s entropy, dilute or die. Dedicated to mostly respecting the dead, no cemetery would dare to reshuffle corpses as casually in the name of current expediency; curators plot hangings and unexpected encounters in a donor-plate labyrinth with the finesse of the retailer: lingerie becomes “Nude, Action, Body,” cosmetics “History, Memory, Society.” All paintings based on black grids are herded together in a single white room. Large spiders in the humongous conversion offer delirium for the masses... Narrative reflexes that have enabled us from the beginning of time to connect dots, fill in blanks, are now turned against us: we cannot stop noticing—no sequence is too absurd, trivial, meaningless, insulting... Through our ancient evolutionary equipment, our irrepressible attention span, we helplessly register, provide insight, squeeze meaning, read intention; we cannot stop making sense out of the utterly senseless... On its triumphal march as content provider, art extends far beyond the museum’s ever-increasing boundaries. Outside, in the real world, the “art planner” spreads Junkspace’s fundamental incoherence by assigning defunct
mythologies to residual surfaces and plotting three-dimensional works in leftover emptiness. Scouting for authenticity, his or her touch seals the fate of what was real, taps it for incorporation in Junkspace. Art galleries move en masse to “edgy” locations, then convert raw space into white cubes... The only legitimate discourse is loss; art replenishes Junkspace in direct proportion to its own morbidity. We used to renew what was depleted; now we try to resurrect what is gone... Outside, the architect’s footbridge is rocked to the breaking point by a stampede of enthusiastic pedestrians; the designer’s initial audacity now awaits the engineer’s application of dampers. Junkspace is a look-no-hands world... The constant threat of virtuality in Junkspace is no longer exorcized by petrochemical products, plastic, vinyl or rubber; the synthetic cheapens. Junkspace has to exaggerate its claims to the authentic. Junkspace is like a womb that organizes the transition of endless quantities of the Real—stone, trees, goods, daylight, people—into the unreal. Entire mountains are dismembered to provide ever-greater quantities of authenticity, suspended on precarious brackets, polished to a blinding state of flash that renders the intended earnestness instantly elusive. Stone only comes in light yellow, flesh, a violent beige, a soaplike green, the colors of Communist plastics in the 1950s. Forests are felled, their wood all pale: maybe the origins of Junkspace go back to the kindergarten... (“Origins” is a mint shampoo that stings the anal region.) Color in the real world looks increasingly unreal, drained. Color in virtual space is luminous, therefore irresistible. A surfeit of reality-TV has made us into amateur guards monitoring a Junkuniverse... From the lively breasts of the classical violinist to the designer stubble of the Big Brother outcast, the contextual pedophilia of the former revolutionary, the routine addictions of the stars, the runny makeup of the evangelist, the robotic body language of the conductor, the dubious benefits of the fund-raising marathon, the futile explanations of the politician: the swooping movement of the TV camera suspended from its boom—an eagle without beak or claws, just an optical stomach—swallows images and confessions indiscriminately, like a trash bag, to propel them as cyber-vomit in space. TV-studio sets—garishly monumental—are both the culmination and the end of perspectival space as we’ve known it: angular geometric remnants invading starry infinities; real space edited for smooth transmission in virtual space, crucial hinge in an infernal feedback loop... the vastness of Junkspace extended to the edges of the Big Bang. Because we spend our life indoors—like animals in a zoo—we are obsessed with the weather: 40 percent of all TV consists of presenters of lesser attractiveness gesturing helplessly in front of windswept formations, through which you recognize, sometimes, your own destination/current position. Conceptually, each monitor, each TV screen is a substitute for a window; real life is inside, while cyberspace has become the great outdoors... Mankind is always going on about architecture. What if space started looking at mankind? Will Junkspace invade the body? Through the vibes of the cell phone? Has it already? Through Botox injections? Collagen? Silicone implants? Liposuction? Penis enlargements? Does gene therapy announce a total reengineering according to
Junkspace? Is each of us a mini-construction site? Is mankind the sum of three to five billion individual upgrades? Is it a repertoire of reconfiguration that facilitates the introgression of a new species into its self-made Junksphere? The cosmetic is the new cosmic . . .
vi. Rem Koolhaas: “The Chinese City”
It is important to realize how hybridized both Western and Asian urban situations are today. Throughout this century, the modernization process has reached various peaks of intensity in various cultures. Inventions have always come out of it, new modes have been developed, sometimes unconsciously: mutations have continuously affected the city and what it represents. This was the case in America in the twenties and thirties. Today, it is clear that modernization is at its most intense in Asia, in a city like Singapore or in the Pearl River Delta. These emergent cities teach us about what is in the midst of happening, even though we may not be able to extract a theory from it. To renew the architectural profession and to maintain a critical spirit, it is important to be aware, to observe these emergent conditions and to theorize them, not to oppose two situations—the European and the Asian, the eastern and the western—but to establish parallels so that conclusions can be drawn.

The notion of the city has undergone a radical change at the end of the twentieth century. After Aldo Rossi, we are unable to imagine that a city can exist without history. But today there exists a vast portion of humanity for whom living without history doesn’t pose any issue whatsoever. We could go even further: living without history is a passionate adventure for them. This observation should lead us to revise a certain number of dogmas or theories of architecture and urbanism, and perhaps to re-examine the validity (or not) of one of the twentieth century’s most important devices: tabula rasa, the idea of starting from scratch, without which modern architects in the twenties like Le Corbusier believed nothing was possible. Such a position clearly shows an extreme optimism, an optimism that the following decades have completely demolished. But maybe we need to re-assess the use of tabula rasa—maybe we have to be more selective in our urbanization strategies, rather than remain anxious conservatives unable to speculate in terms of the new.

Cities like Singapore probably represent the truly generic condition of the contemporary city: history has been almost completely blotted out, the entire territory has become completely artificial, the urban tissue does
not endure in any kind of stability beyond a relatively short period of existence. As a city, it represents nothing more or less than the coexistence of a number of apparently unconnected buildings which, by the simple fact of sharing a certain proximity, form an urban condition—and which is inhabited without apparent anxiety.

We find this kind of habitat a bit sinister, rather strange. This has two reasons. First, the conceptual difference separating Europe and Asia makes the latter difficult to understand, perceive, and analyze. Second, there is the Asians' defense of their values, the claim that a new modernity is being constructed, very different from what we are familiar with here. This last assertion is partly a mystification, but that there is a new urban condition is clear.

Asia as such is in the process of disappearing. Asia has become a kind of immense theme park; Asians themselves have become tourists in Asia. Apparently all these new phenomena take place without architecture, without remarkable architects, and without all the professional disciplines that we imagine to be essential to the production of the city. It is one of the great tragedies and one of the most interesting spectacles of the present situation in Asia that this phenomenal explosion of the urban condition doesn't coincide with any explosion of Asian architecture. Asian architects are much more marginalized than we are in Europe; it's even more difficult for them to conceive their role. Neither in Asia nor in Europe have architects found a real place in the economy. Political systems today are much less concerned with collective values; the market economy in whatever form increasingly dictates certain decisions, more and more strictly and inevitably. Although we can use the term "city marketing," the term "urbanism" can no longer exist as such; in fact, there is an absolute incompatibility between these two terms. So, in Asia, there is a crisis of architecture and urbanism.

The Pearl River Delta represents an isolated case in the more general current of what is happening in China. In 1979, 19 percent of the Chinese population lived in cities. In 1984, it was already 32 percent; eight years later it was 43 percent. Given that the total Chinese population is about one billion, one can imagine what each of these stages means in terms of the unbelievable speed at which the urban condition in China has to be
generated. It is therefore both plausible and probable that at this speed, new urban conditions are being generated which might have something to tell us. The Pearl River Delta is in the southern part of China; from there you can see the Philippines, and Indonesia is nearby. It is the warm, hot tropical underbelly of China. The distance between Hong Kong and Canton is seventy-five miles, so you can imagine the size of the Pearl River Delta. Today it is an agglomeration of cities which do not yet form a single city. Some are well known—Hong Kong and Macao, for example, which are still English and Portuguese—but there are also four very Chinese cities, each with a different nature and character. Guangzhou is the old provincial capital formerly called Canton, and therefore identified with the southern Chinese style of openness and promiscuity. Then there are two relatively recent cities, Shenzhen and Zhuhai, each belonging to a Special Economic Zone. The fourth city, Dongguan, remains a provincial city which defines itself in terms of its difference from the three others.

The Pearl River Delta has always been used by the communist regime as a way of observing outside forces without having to worry about contaminating the country as a whole. To a certain degree, it has always been an experimental zone where foreign capital could be received as though in a laboratory. The Special Economic Zones are also kind of vitrines for the policy of openness, devices or machines generated by the Chinese government in order to use some of the commercial energies that exist in the immediate vicinity. Within the Chinese system, a city like Shenzhen is a place where rules are less stringent and money plays a much bigger role than elsewhere. There is an explicit intention to exploit the flourishing Westernness of Hong Kong and to anticipate its return to the bosom of continental China. There is an interesting condition of mutual exploitation: Shenzhen is only there because Hong Kong is nearby, while Dongguan exploits the presence of Shenzhen and Canton by trying to be even more cheaper, brutal and radical than the others.

Twelve million inhabitants live here today. The prognosis is that in 2020, thirty-four million people will occupy this territory only slightly bigger than the Dutch Randstad. What is immediately striking is that the entire system of the PRD generates 300,000 square miles of urban substance per year. Such is the incredible acceleration taking place here.

The entire urban development of the PRD was triggered by a 1978 edict from the Chinese government, which came after many similar mottoes that have characterized the whole history of communist China. Each time there was an almost poetic formula from above, like “Let the hundred flowers bloom.” These formulas were imposed on the population and became their motto and their guidance for that period. After Mao, the guidance became, “To get rich is glorious,” an ambiguous way of confessing the importance of money without abandoning the rule of the communist party. In this way, a seeming apotheosis of the market economy can also be read as an apotheosis of the communist system. The fact that the urban condition today is changing faster than ever before has led to the need to overhaul the vocabulary at our disposal. The contemporary language for talking about the city is lacking when it comes to naming and interpreting its mutations. Our profession is severely handicapped and hampered in its potential action and operations simply by the fact that we have no developed repertoire of concepts and understanding that can deal with the city as it emerges. Part of this project has been the attempt to create a repertoire that would allow us to follow the exceptional speed at which the city is emerging today.

We have introduced seventy-five new terms to account for the specific characteristics encountered here; these will be published in copyrighted form to make their ownership clear.

We began our tour in Shenzhen. The Special Economic Zone of Shenzhen went in about ten years from almost nothing to 800,000 official inhabitants and half a million unofficial inhabitants, i.e., from zero to nearly one and a half million; five years later it reached three million. When we are dealing with such leaps, it becomes certain that the urban condition is being modified beyond recognition. Shenzhen is in the situation of a parasite: it offers all that Hong Kong can offer but cheaper, so it sucks away energy. The figures reveal an enormous movement from Hong Kong to Shenzhen. The two are separated by a mountain ridge and connected by the sea; there are a number of border crossings. The city was begun very brutally at the point of one of those crossings and was created from scratch. It’s historically rare: the leap between nothing and an urban situation has occurred without any intermediary.
We are immediately at the metropolitan scale; nothing is older than 12 years, while in the oldest areas of the city nothing has been added in the last five years.

The horizon is entirely new, a kind of freeze-frame of seven years of architectural production. It is inevitable that in such a system, corruption plays an enormous role. In fact, Shenzhen is one of those areas where corruption almost becomes another form of planning, as a necessary device to negotiate the contradiction between rules and ambitions. Architecture is in this city pursued with religious verve. Two-thirds of the papers are occupied with the city itself. There is a daily poetry page where sometimes baroque and expressionistic poems sing the praises of Shenzhen. It is a tautological condition where each article insists on the incredible nature of the city, the importance of its buildings and infrastructure. There is endless publicity about real estate, and there is even a very original way of appreciating architecture: as in a stock market there is a daily list of the values of nine hundred different apartment towers, changing every day. The stock market has annexed architectural or building values. This indicates that the value of the buildings is only partially connected to the potential to inhabit them; they are simply forms of investment to be treated with the same loyalty as stocks. In certain ways, we may be in a similar situation without necessarily knowing it. Observation reveals a few of the secret, unofficial sides of Shenzhen. Next to the official population there develops a parallel world formed by the people who build this metropolis. They belong to what the Chinese call the migrant population, or “floating population”, and they too have to live somewhere. Independent buildings were built for them originally, but in the past three years the pressure has been so great that all the gaps between them are now closed and inhabited; two or three levels of illegal accommodation have been added, to form a single entity which is incredibly dense. The sheer intensity of use and occupation of these buildings stands in amazing contrast to the largely empty status of some of the other architectures, which are mostly architectures for investment. This is an almost solid building, which will become solid in the next five years, to accommodate the so-called floating population which, in 1990, was one million. This presents amazing conditions; in these gaps,
for example, live entire construction crews. It could be claimed that Chinese architects are the most important architects in the world, certainly in terms of numbers. Take the number of architects per nation. In Spain there is a good relationship: one in three thousand is an architect. Then come France, England and the USA, where they are less blessed with architects than in Europe. Then there is the amazing leap which is the Chinese condition. Architects are rare here. Entire stretches of China count one architect per four million inhabitants. There are ten times as few architects per thousand people than in the rest of the world; the Chinese architect, then, has to be ten times as efficient as any of his colleagues. The average amount of buildings the average Chinese architect has to do amounts to a thirty-story tower every year. So there is enormous efficiency. In terms of honorariums, however, the Chinese architect earns a tenth of the nearest competition. In other words, one-tenth as many architects have to built ten times as much, for a tenth of the honorarium. Multiplying all of this gives a factor difference of a thousand, which provides the theoretical envelope of Chinese architects and of Chinese architecture.

In 1993, the number of towers in Shenzhen was four hundred and fifty. In recent years this has doubled to reach nine hundred. The speed and intensity of production is literally overwhelming. If a city can produce nine hundred towers in ten years, there must be a mutant figure operating there; in this case, it is the Chinese architect. Clearly he works in a completely different way than we do and has talents that we do not possess. Most of his production is done not in agencies but secretly, on a kitchen table with a computer. Chinese architects are probably the most modern architects in the world in their exploitation of all the resources of computers—not in terms of experimentation, but because of the way computers enable spatial reproduction and the production of a repertory of forms at devilish speed. There are buildings which were designed by two Chinese architects in two days. This may seem funny; but the prospect becomes slightly sinister when we realize there may soon be a time when all of us will also be asked to design buildings in two days—and then we will be among the lucky ones.

These buildings designed on a table-top are not necessarily boring.
In fact, they could be considered a daring blend of art and architecture. Despite their repetitive elements, they display a will to originality and a definite ambition. This architecture is not unrelated to the kind one finds along the freeway leading to the airport of any city; so this collection of buildings, which is quite average in Shenzhen, could equally be an average collection of buildings in Rotterdam.

The Chinese architect has had to find a number of extremely efficient ways of differentiating buildings; he is, for example, among the most efficient in the world at the endless manipulation of the curtain wall. In China this is sometimes pronounced "curtain war," and this has become one of our copyrighted terms: "The competition between architectures using the maximum variety that the glass-panel allows." In the perversity of this system, not only is there an incredible speed of design and construction, but almost every building will change its program before construction is finished. Architects recycle projects. A twenty-two story tower can be cut off without any modification of the original design. Financial aspects determine the height of the building or the change in program. Changes are sometimes radical: an office becomes a hospital half way through construction. Any conversion is possible. A building that was initially designed as a parking garage has accommodated at least forty-five other functions in the meantime; each function is designated on the facade by a different fragment of curtain wall, an unusually efficient way of creating an analogy between inside and outside.

The beauty of the system is that Chinese architecture is never final, but in permanent conversion. There is no ultimate condition, only mutation from one condition to the other. I would like to suggest to my European colleagues that this is also going to happen here very soon, and our illusion that architecture will ever reach any finality will probably evaporate in the next 20 years. In that sense there is a mysterious, almost sinister quality of premonition and prognosis going on here. A recently converted office building could become a bowling alley, a little shopping center, a karaoke bar...

In Shenzhen there are rice fields and then, without any intermediate condition, the metropolis. This juxtaposition could be described as horrifying, but also as extremely luxurious in the sense that two
habitually autonomous situations can coexist in a single system. The future city—if we consider this for a moment as our future city—will consist of large chunks of landscape combined in a brutal way with large chunks of urban substance. The urban substance has polarized into only two conditions, either the skyscraper or the hovel or hut, with nothing in between. PHOTOSHOP©—another word that we have intended to copyright—is perhaps the nearest analogy to this method of production. Everyone knows PHOTOSHOP©, which allows us to make collages of photographs and other digitized images, its capacity to combine anything with anything else in a kind of accumulation of objects of desire. This is precisely the essence of the architectural and urban production of this country; instead of being produced by an incredibly deep way of thinking, with an intellectual preparation and painful hesitation between different solutions, design today becomes as easy as PHOTOSHOP©, even on the scale of a city. PHOTOSHOP© is the metaphor of what architectural production is becoming: something strictly mechanical, reproducible without thinking, unlimited in terms of all the options that can be combined in a single image, the most decisive way of conceiving the city. That was old Shenzhen. Now we move to more recent Shenzhen, to look at the further mutation of the city. Nothing here is older than seven years. It could be La Défense. Inserted in the middle of this urban condition, again without any intermediary, is a large park. Now, snickering turns to admiration if we conceptually move to New York and think of Central Park and the architecture that surrounds it: the image of an Arcadia surrounded by residential buildings, or in any case architecture. We have integrated the beautiful contrast established there between the vegetal and the mineral. Between the design of Central Park and our image of it, at least a hundred years went by. In Shenzhen, it took only seven. But it is not merely a park; it is one of the golf courses of Shenzhen. There was a time when golf was prohibited in China as a symbol of decadence. Today, these golf courses play an increasingly important role in the life of the Asian metropolis. They are open twenty-four hours a day because the new Chinese city is open twenty-four hours a day, vibrating twenty-four hours a day. They are the agents of a new Asian centrality. In Europe, we have a few ridiculously residual golf courses that are
painfully embarrassed about their very existence in the armpits of infrastructure; here they form the core and perhaps the most attractive parts of the city. They merge with other forms of accommodation to create a seamless condition of housing, shopping, and golf. This is where business deals are made. This kind of inhabited landscape becomes the medium that links everything together. Instead of streets and squares, in the center of Shenzhen the situation is much more idyllic: everything is in relation to the golf course where people exercise and children play. This is what we have called the new Chinese utopia, the UTOPIA OF GOLF®. It is the most recent revolution of socialist realist urbanism.

Another form of identity is inaugurated with theme parks. One of these parks is a partial reproduction of Europe—quite well done in fact, with its own Eiffel Tower—which once again gives a clear idea of centrality. We don’t even have an Eiffel Tower here. So another vehicle of the creation of centrality and identity is the proliferation of theme parks: as with the original, this Eiffel Tower is very important for orientation in the city. A neighboring theme park contains a number of miniature Chinese monuments. So the new center of Shenzhen is just a seamless composition of golf courses and theme parks, and of course this becomes part of the new urban contrast around it.

Let’s move north from Shenzhen along the "Gordon Wu" highway. It is unusual, but this highway is named after its owner, a developer who lives in Hong Kong. His obsession is to create infrastructure for the future of Asia. He has a rather skeptical relationship with the Chinese, which is expressed in his constructions: unlike most highways his is not on the ground, but for its entire seventy-five miles is built on a viaduct. It goes endlessly without any contact to the ground, and after a while this refusal becomes clear: Wu does not want to be on the ground where he would intersect with the actual condition of China, unless he can control the situation. Only then will the highway touch ground.

The highway also includes a series of intersections and cloverleafs at points where there is no visible reason to get off or on. In this way the highway becomes the tool for the creation of twelve or fourteen entirely new cities in the middle of a huge, energetic landscape. So at each intersection there is a plan for the core of a city; in certain cases these
are partially constructed. It is an incredibly spectral, almost phantom situation: a highway leading nowhere, in the middle of nothing. Can all of this be explained by the market economy? Given that in Shenzhen some of the most glamorous buildings are occupied at only 15%, and that in certain cases a 7% occupancy rate is considered an enormous success, and given the simultaneous construction of an unlimited number of future ghost towns, it becomes clear that this is a completely false assumption. We have to look somewhere else. Our assumption was that it was more appropriate to look at it as a more final apotheosis of the communist system. Communism has always had mechanisms by which the tortures and the difficulties of the present were justified by the sublime quality of the ultimate destination. In art this was called socialist realism. It was utopia made real: the future condition was depicted in the most realist manner as a justification and an explanation for the present toil. In the same way we've introduced the concept or notion of MARKET REALISM, which explains the fact that this entire activity is taking place seemingly without any justification in terms of the classical norms of the market economy, almost as a built mirage or fata morgana: the will to create a metropolis of thirty-four million inhabitants. Reading it in this way gives an incredible pathos and beauty to the intensity with which future buildings are announced by billboards in Shenzhen. Sometimes, one feels that this will be the most physical embodiment these projects will ever achieve: the billboard is there, the excavation is made, the landscape is erased, and this represents the future reservation for this city.

After Hong Kong and Shenzhen comes the third city, Dongguan. Dongguan considers almost itself as a bastard city, not really a city, not really having this special status. The Special Economic Zones are still connected to rules and to an official policy; Dongguan is a city that does not want to be connected to the highway system because it feels that by being disconnected, disjointed, separate, and autonomous it will have a kind of ultimate freedom to guide its faith.

The first impressive thing about Dongguan is the amazing amount of abandoned factories. At this point the logic becomes clear: if Shenzhen was created because factories could be built cheaper than in Hong Kong,
then Dongguan could build even cheaper factories, then Shenzhen built them in unimaginable quantities. So these factories were no longer modern enough and were simply abandoned.

In some of these factories live floating populations in squats, but there are entire sectors of the city which are simply empty. Dongguan had one big project: to take down the center and to build a new center in the north, on an enormous scale. It is a ghost town: an entire quarter which was supposed to be the future center is mostly uninhabited, except for one small part that is officially designated as the mistress quarter. Here the accumulated mistresses of Thai, Vietnamese, Indonesian and Philippine businessmen fill one of the super blocks, but otherwise the entire center is uninhabited. In this bastard city not only are large parts of the old stock simply abandoned, but also the largest part of the new stock has been abandoned in anticipation of future conditions.

Each city in the Pearl River Delta defines itself not as a counterpart but through a kind of brutal opposition, each with the same desire to oppose all the others. So the west side tends to reject the ruined, overdeveloped east side, which is vilified as the Wild East, an overdose of speculation: the west side, it was said, would take matters more slowly and carefully. The avowed goal was to create idyllic conditions: the model was Singapore. So we could speculate that the east side will become America and the west side will become Singapore, creating an interesting opposition in Asian terms.

What does it mean to become Singapore? Here, above all, it has meant clearing unbelievable sections of ground in an orgy of tabula rasa where it seems as if the act of clearing becomes an act of faith. There is an apparently sacred pleasure in creating void spaces where tabula rasa is no longer an anticipation, but almost an autonomous condition. Entire mountain ranges are flattened, entire zones completely levelled into planes over incredible lengths. What was the justification for these titanic efforts to eradicate the landscape and create a garden city? And where did all the rubble go? Perhaps it might be connected to Ying and Yang: the mechanism that flattens the mountain fills the sea.

More land is created. The cycle closes in on itself, the net result being a gain of land from the sea.
Each of these cities plans its future, conceives its future and solves its problems in a completely different way. Thus the other Economic Zone, Zhuhai, is in every sense the counterpart of Shenzhen. It is actually a garden city. There is more respect for nature. You can see it in the screens of vegetation placed at tactical points, in the treatment of the freeways and cloverleafs—450 miles of roadway planted with trees—and in the enormous abundance of flower beds organized everywhere. You can also see it in the plan of Zhuhai: an enormous percentage of the city has to be gardens or green, perhaps 30% of the urban substance; each housing project has to include a certain percentage of green ground. Here Deng Xiaoping was also instrumental in triggering the spurt of development. It is a strategically important place which acts as a kind of filter between communist China and the potentially disastrous influence of Macao, which, for all its casinos and prostitution, is still of economic interest. According to a comparison between the master plan of the city and its actual growth, however, Zhuhai is a failure. To compete with Shenzhen, Zhuhai had to attract inhabitants; to block stagnation and remain competitive, the authorities of Zhuhai chose greenness and beauty. It is in this way that the whole rhetoric of the garden city was triggered. The insistence on the garden quality dictates every image, every billboard, every corner. Seduction is an absolute necessity. There is a vacation village for the workers, another for middle management; another method of urbanism to attract the crowds to the remotest parts of the territory. The population of the Pearl River Delta has to inhabit the entire urban system in shifts. All habitation is provisional and therefore the most stable condition is that of the motel. And it is completely possible that this failure will sooner or later turn into a raging success. In fact, even though the city is a failure, it is very adamant about being a success in the future. Zhuhai proclaims it has the lowest density per square mile, the highest percentage of green space per inhabitant, the best climate, the most islands, the deepest port, the project for the longest bridge, the longest landing strip. Its international airport really is impressive. So far it only has five flights a day, but in direct connection to the airport there will be an aerotropolis, a fragment of a metropolis with excellent connections, which
will soon become an attractive condition since it is facing the ocean. Zhuhai is also sponsoring a project by Isozaki, who will build a copy of Venice at exactly the most enviable point and served by the airport. The way Zhuhai has turned its failure into a quality, its ghost status into a specific and deliberate situation, is extremely instructive. Everywhere in the city there are corridors, so equipped that one can read the future status the city has chosen for itself. And just as the Russians under Potemkin built villages bigger and healthier than the actual ones for the inspection of the Czar, so these are POTEMKIN CORRIDORS©, built in relation to chairman Mao's movements through the country, each giving rise to a long, perfectly equipped strip where all the ambitions of the revolution have been achieved as if by magic. Each of these corridors acquires a status or a suggestion which is beyond its reality. One of these is the longest lover's lane in the world, a hundred miles long, facing the sea—a beachfront POTEMKIN CORRIDOR©. The bridge between Zhuhai and Hong Kong, fifty miles long, is even more ambitious: hardly viable for a garden city, but another POTEMKIN CORRIDOR© of a very special kind. Why should a metropolis like Hong Kong be connected to a flower bed? Posing the question is already enough to answer it. In this context, of course a metropolis has to be connected to a flower bed, and preferably by a device that leaves the metropolis a metropolis, the flower bed a flower bed. We are used to infrastructures that have an equalizing and homogenizing effect, relieving the tension between poles; in the Pearl River Delta these are used for maintaining and increasing difference between the two sides. At the time of our research, the western part of the bridge was being built, the middle part was being projected, and it was still unclear where the bridge would end. This is unimaginable in a European or American condition, but here it made sense. Because it was not yet clear whether Hong Kong or Shenzhen would become the dominant city: if Hong Kong won, the bridge could end there; if Shenzhen won, the bridge could end there. It was wise to wait. The first part of the bridge ended on an island, which gained status as a pigeon theme park and bungalow area. But there is more: Zhuhai is also projected to connect a group of islands that it owns in front of Hong Kong, via a series of tunnels. Some of these
tunnels would be forty-five miles long, so this garden city might become the richest in infrastructure of any urban condition in the world.

To exploit its strategic advantages in an artificial way—if it did have access to these islands—Zhuhai could begin to control the flow of ships to Hong Kong and Shenzhen and could somehow generate impediments that would encourage people to use its new harbor. It has the deepest ocean harbor in Asia, and might surpass the port traffic of Rotterdam in the year 2010 (according to the Zhuhai planners, at least). So here we are facing a new concept of infrastructure: infrastructures that were mutually reinforcing and totalizing are becoming more and more competitive and local. In the modernist spirit, infrastructures were a response to improve a certain situation—in terms of the acceleration of traffic, for instance—in an almost medical approach. This is no longer true today. Infrastructures would be much better understood if they were considered purely predictive. Take the Wu freeway, the one that hardly touches ground. Very few vehicles use it because of the tolls. It is difficult to understand what the need for it might be, and clearly there isn’t one. If you take on of the off-ramps, you won’t necessarily arrive anywhere. This enormous system only exists to trigger off a future urban situation. Infrastructures no longer pretend to create functioning wholes but now spin off functional entities. Instead of network and organism, the new infrastructure creates enclave and impasse: no longer the grand récit but the parasitic swerve.

If China is destined to become a market economy, today it is only speculative and addressed to the rich. It is unthinkable that in the foreseeable future it will adopt certain things that we traditionally associate with the market economy, the first of which is profit. Here it is only a matter of speculation in terms of a future condition, linked perhaps to the incredible speculative energy of a communist system that always explained and amnestied the present with regard to an ideal future condition. It could be said that China is now a communist market economy—in fact, that’s the term they use—in the sense that the overall logic always includes a deferral of recompense, of profit, of the ideal situation.

Such are the kinds of mutations and radical changes this research has revealed. Linguistic research, the reexamining of the meaning and value of
the words at our disposal—such as "infrastructure"—in an exploratory way, has been absolutely necessary to bring about a shift in vocabulary in order to understand what is happening in these cities, and also, to some degree, to better analyze what is happening in our cities as well.

The term ASYMMETRY©, for example, can be renewed as a concept to define all phenomena that restore, maintain, or intensify the equalities on which this urban system is based. We can all be skeptical about Zhuhai, laugh about its ambitions; but the real issue is that Zhuhai is connected to Macao, an extremely dense urban condition, like Hong Kong, which currently enjoys a condition of freedom. This freedom will end in Hong Kong in 1997 and in Macao in 2000. And then Hong Kong and Macao will simply look incredibly overcrowded, rich in slums and rich in unattractive conditions. Cities that, without the attraction of freedom, will have nothing to keep anyone there. At that moment, which we've called TRANSITIONAL REVERSAL©, Zhuhai will become a thousand times more attractive than Macao and be able to compete in a very legitimate sense.

Perhaps the concept that best describes this urban system is the CITY OF EXACERBATED DIFFERENCE©. What it means is that every city in the PRD defines itself in terms of difference from the other cities. At the same time we know that they are destined to form a single urban organism. What is interesting in this model of the CITY OF EXACERBATED DIFFERENCE© is that in order to survive, it will always have to renew its differences. The moment they blur and the identities become similar, the model will lose its vitality and the strategic way in which it operates in the world. It is a very brutal, unstable model: each city is obliged to adjust itself to every change that is made in every other city. The CITY OF EXACERBATED DIFFERENCE© is defined as follows:

"The traditional city strives for a condition of balance, harmony and a degree of homogeneity. The city of CITY OF EXACERBATED DIFFERENCE©, on the contrary, is based on the greatest possible difference between its parts—complementary or competitive. In a climate of permanent strategic panic, what counts for the city of CITY OF EXACERBATED DIFFERENCE© is not the methodical creation of the ideal, but the opportunistic exploitation of flukes, accidents and imperfections. Though the model of the CITY OF EXACERBATED DIFFERENCE© appears brutal—to depend on the robustness and primitiveness of all its parts—the paradox is that it is, in fact, delicate and sensitive. The slightest modification of any detail requires the readjustment of the whole to reassert the equilibrium of complementary extremes."

This is the basic issue. Another issue is that we have always been ashamed of the diagrammatic, because we thought it was unreal and it had to be enriched with specificity. But here it forms the dominant rule. One of the most important new aspects of these cities has to do with landscape. We have already seen a number of dramatic insertions of landscape; some of these are accidents, but on the west side we have also seen the degradation of tabula rasa as landscape, the reading of tabula rasa as landscape. What we have here is an entirely new condition which we have defined as SCAPE©:

"An [exploded] mountain, a skyscraper, a rice field in every direction, nothing between excessive height and the lowness of a continuous agricultural/light-industrial crust; between the lofty and the loft. SCAPE®, neither city nor landscape, is the new post-urban condition: it will be the arena for a terminal confrontation between architecture and landscape. It can only be understood as an apotheosis of the PICTURESQUE©."

What SCAPE© announces is the end of two disciplines, architecture and landscape architecture, and their future merger. We already have the paradigmatic image for this new urban condition: the presence of the metropolis and the most atavistic agriculture, the rice field, in a single frame. This conflation is present in almost every one of the situations we have described. It is a representation of the urban condition at its most intense; it could be summed up by a billboard with "100 years of no change" next to a fishpond, with a horizon of towers nearby and nothing except skyscraper and low rise. Perhaps this is the image of the future.

What does it mean to build today, in a world where structures and organizations of all kinds collapse under the avalanche of the now as quickly as they are thought? Of course I am not speaking only of architecture but also of every other system operating today. The callousness of capital, the quicksilver logic of trend, the mobility of the masses, the entropy and flow of energies — does one dare to entertain, in this arena of hyperfragility, a discourse on firmitas without consciously arguing that the heaviness of architecture is not an impediment in resolving forces? Should there be laughter among those who have abandoned building or among those who were never condemned to craft space, at the hopes and dreams of the ones who desperately welcome such condemnation?

At the outset, an architecture motivated by the contemporaneity of events in the world (realism) is guided by the will to apply rather than to abstract knowledge. This desire to manifest is in response to the reassessments of knowledge now going on in many disciplines. Francisco Varela writes, "At the very center of this emerging view is the belief that the proper units of knowledge are primarily concrete, embodied, incorporated, lived." Application involves the reifying of knowledge into a usable and/or readable state, one where the sensations of the material space provide an ineffable feeling. The usable state, no doubt, refers to the implementation of effects within a building that are receptive to the engagement of the body. Historically, architecture has concretized knowledge by its ability to convey a certain programmed function-state; it coheres when it represents a condition of use through its spatial domain. Does building reach its mastery of reality when its objectification by design houses a smoothly operating system of humans with intent to do something?


"...sensations do not act as metaphors, transferring us to other objects or spaces serving as points of reference. The material and its durability are what support and produce both the perceptions we receive by means of our senses and the effects that are neither merely subjective nor to be considered pure projections on the part of the individual confronted with the work." Ignasi de Figueras, Differences, trans. Graham Thomson, ed. Sarah Whiting (Cambridge, MA: MIT Press, 1999), 32.

Baudrillard distinguishes the sign value from the material value of an object through difference. As commodities are consumed, they become signs of another system beyond the utilitarian. Accordingly, an object generates meaning in an abstract value system relative to all other object-signs. It is only when seen against all other objects in the commercial field that any object may be understood to be part of a system. Roland Barthes reiterates this when he says that given a society, all objects will automatically become signs. This is perhaps the moment when the rhetoric of functionalist modern landscapes, buildings, and interiors became suspect. Baudrillard breaks down the one-dimensional nature of function as utilitarian when he writes: The term evokes all the virtues of modernity, yet it is perfectly ambiguous. With its reference to "function" it suggests that the object fulfills itself in the precision of its relationship to the real world and to human needs. But as our analysis has shown, functional in no way qualifies what is adapted to a goal, merely what is adapted to an order or system: functionality is the ability to become integrated into an overall scheme.

Buildings
Buildings, apart from people and nature, constitute the material and spatial density of the city. They make a nature and, like objects, they can be classified. Would it be strange, despite the everpresence of building, to consider architecture as part of our consumer society, that realm where objects are the vessels of unbelievable desire? Due to a cost commensurate with size (if not always quality), architecture is a commodity for a few, a necessity for most, and potentially desired by all. Indeed, all the houses and high-rises in the world cannot add up to the number of products occupying the ever-thickening, highly impastoed world of commercial artifacts. Architecture, therefore, is consumed not in a point-of-purchase scenario but as space, as style, as its own system of objects.
Response to Baudrillard's four logics:
— Buildings appear because of use. They house something called a program, a precise or vague set of the users' spatial needs.
— Speculators and users who develop or own buildings regard them as assets. Every floor plate is a miniature economy in itself, a commodity in a world of finite building sites.
— How does architecture generate value beyond its utilitarian or market value? How else can it function such that an actual value can be ascertained, if not quantified?
— Public buildings such as museums are usually understood as symbols in the city—those institutions offering images, ideas, and artifacts to the knowledge-consuming public.

Conventional wisdom suggests that form or aesthetics in objects may codify the sign value of architecture—that is, a box may be a signform for straightforwardness, an ascetic or sober response to its use value, or an eccentrically shaped building may be a signform for progress, delight, or the signature of the auteur (brand name?).

Umberto Eco offers a second analysis of sign functions, patterned after Hjelmelv. The four levels are already installed in relation to architecture:
— Expression-substance: the total of all possibilities that can articulate space and matter.
— Expression-form: the system of architectonic oppositions and thus structures of form.
— Content-substance: all possible architectural functions in a given culture.
— Content-form: the system of meanings that a culture associates with architecture.

To assert that architecture is a conjunction of expressions and forms is obvious. But what should architecture express other than its own internal logic? Is the moment when content becomes expression, surely an accurate if schematic interpretation between the logic of construction and use. Baudrillard's analysis and, in fact, the whole of semiotics during the 1960s, outlined the multiplication of functional discourses, including the dysfunctional and inessential aspects of cultural uses, those use values that were at odds with a universal language. Nonetheless, the huge changes in spatial culture incurred via the realization of glass architecture and repetitive logic were a program, an auteur.

As a design field, especially in the Era of Good Design (Charles and Ray Eames, Wim Crouwel, Paul Rand, Eliott Noyes, Adrian Frutiger), modernism generated a consistent array of material and spatial fabrications intent on an intimate relation between the logic of construction and use. Baudrillard's analysis and, in effect, the whole of semiotics during the 1960s, outlined the multiplication of functional discourses, including the dysfunctional and inessential aspects of cultural uses, those use values that were at odds with a universal language. Nonetheless, the huge changes in spatial culture incurred via the realization of glass architecture and repetitive logic gave current architecture its catalog of basic and undeniably systems of building, if not representation. The very material things at which Jacques Tati poked fun in his film Playtime (1967) are what survive today as the compelling ingredients in contemporary architecture. The cultural regimentation of modernism has, however, given way to even more supple and open-ended arrangement of functions.

Scarcity of land is directly linked to the concept of location in real estate.

Baudrillard points to Marcel Mauss's theory of the gift to explain the differential, singular, irreplaceable aspect of symbolic exchange.

Danish semiotician Louis Hjelmelv (1899-1965) developed the concept of glossesemiotics, which consists of both linguistic and non-linguistic languages. He also conceived of a system known as connective semiotics, later taken up by Roland Barthes in The Fashion System. Hjelmelv referred to the elements of this connective system as units of style that exist on an expression plane different than a content plane.


Pleasure is used here to describe the moment when a building works on all levels with work being a reference to both use-logic and beauty.